PASSENGER PROGRESS NUMBER

NOVEMBER 22, 1941

Railway Age

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 111, No. 21.

Published every Saturday by the Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa., with editorial and executive offices: 30 Church Street, New York, N. Y., and 105 West Adams Street, Chicago, Ill.

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The Railway Age is a member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulations (A. B. C.)

Subscriptions, including 52 regular weekly issues, and special daily editions published from time to time in New York, or in places other than New York, payable in advance and postage free. United States, U. S. possessions and Canada: 1 year, $6.00; 2 years, $10.00; foreign countries, not including daily editions: 1 year, $8.00; 2 years, $14.00.

Single copies, 25 cents each.

H. E. McCandless, Circulation Manager, 30 Church St., New York, N. Y.

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 111 November 22, 1941 No. 21

In This Issue

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

PRINTED IN U. S. A.

PASSENGER PROGRESS *with* MODERN SIGNALING

THE red lines on the large map indicate the 1941 routes of streamlined passenger trains operating on high speed schedules which are being maintained with the help of "Union" Signal Systems. Two years progress in this field is clear from comparison with the smaller map which shows the routes available in 1939.

The streamliner uses every operating second. Every second saved reduces operating expenses, while every second of unnecessary interference with train operation is a burden on the schedule, the balance sheet and the capacity of the road. "Union" Signal Systems safely eliminate seconds—and minutes—and hours of waste time in train operation.

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RAILWAY AGE

Another Year of Passenger Progress

The attention devoted to the railways during the last year by their own officers, by government officials and by the public has been concentrated principally upon the problems presented by the demands of a record-breaking freight traffic, the unprecedented demands of the labor unions for advances in wages, and the necessity of almost unprecedented purchases of equipment and supplies and the difficulties encountered in getting materials. This has contrasted sharply with the attention given in immediately preceding years to improvements in passenger service and to changes in fares for the purpose of reversing the trend of passenger earnings from downward to upward. The difficulty encountered this year in getting materials has hindered the acquisition of improved passenger equipment. Nevertheless, as shown in articles published elsewhere in this, the third annual Passenger Progress Issue of *Railway Age,* progress in improving passenger service has been vigorously continued.

The Public Being Given What It Wants

Since the publication of our last Passenger Progress Issue (November 16, 1940) there have been put in service 34 new lightweight, streamlined trains having 265 cars, increasing the number of such trains to 121 having over 1,000 cars. And there are still being built 26 such trains having 233 cars, which, when finished will increase the number to 147 having 1,235 cars—an average of 8½ cars per train.

The Pullman Company has kept pace with the modernization of passenger coaches. It now owns and operates 451 lightweight, streamlined cars and has 178 on order, in addition to which numerous rebuilt, modernized sleeping cars are being operated throughout the country. The increase that has occurred, and is still occurring, in the public demand for luxurious accommodations is indicated by the fact that only a few of the new and modernized sleeping cars have open sections, and that none of the new cars on order will have them. As shown in an article appearing elsewhere, the lightweight sleeping cars being operated and on order will have only 1,116 open sections, as compared with 5,200 rooms ranging from 296 drawing rooms to 2,236 double bedrooms and 2,887 roomettes.

Increases in Traffic and Earnings

The specific purpose of the railroads and the Pullman Company in improving passenger service has been to reverse the trend of passenger traffic from downward to upward, and thereby reduce the loss being incurred by many railways in rendering passenger service, convert a loss from this service into a profit on other railroads, and increase its profitableness on others still rendering it at a profit. The purpose of reversing the trend of passenger traffic has been accomplished. It declined during the prosperous '20's from 47 billion passenger-miles in 1920 to 31 billion in 1929; and during the depression declined further to 16⅓ billion in 1933. It then increased to almost 25 billion in 1937; declined to less than 22 billion in 1938; and increased again to 24 billion in 1940. The increase has accelerated in 1941, the number of passenger-miles in the first eight months of this year having been 19 billion, or almost 22 per cent larger than in the first two-thirds of 1940. In fact, passenger traffic in the first two-thirds of 1941 was larger than in the first two-thirds of any other year since 1929; only 10 per cent smaller than in 1929; and 85 per cent larger than at the bottom in 1933. It was larger in **the first two-thirds** of 1941 than in any of the **entire** years 1932, 1933, 1934 or 1935.

In order to reverse the trend of traffic it has been necessary to reduce fares as well as improve service. Consequently, the reversal of the trend of passenger **earnings** has been less marked; but there has been a great improvement in earnings, also. They declined from 671 million dollars in the first three-fourths of 1929 to only 245 million in the first three-fourths of 1933, and had increased to only 378 million in the first three-fourths of 1941; but this made them 66 million dollars larger than in the first three-fourths of 1940, the largest in the first three-fourths of any year

since 1931 and 133 million larger than at the bottom in 1933.

It would be impossible to make any intelligent appraisal of the extent to which the improvements in passenger equipment and speeds have contributed toward the increases in total traffic and earnings; but that they have made a large contribution there can be no serious question.

Important Effects of Improved Service on Public Opinion

The improvement in passenger service has had and is having a by-product of great importance. It is vital to the future of the railways that the public shall believe they are efficiently and progressively managed. There has been made recently by a business research organization a comprehensive survey of public opinion regarding the railroads. The *Railway Age* has a copy of its preliminary report, and intends when it becomes available to review its final report at some length. Meantime, the preliminary report indicates that there is now criticism by only a small minority of the people of railway managements for operating inefficiency and lack of foresight.

Eighty-two per cent of the persons interviewed were able to mention one or more specific improvements of which they were aware. Most of them, however, limited their comments to five major features that have impressed them—(1) faster, larger, more powerful locomotives; (2) streamlined trains; (3) Diesel power or electrification; (4) more comfortable and attractive coaches; and (5) air-conditioning.

It is significant that all these improvements have been made partly or entirely in passenger service, and that they are all of kinds that make a **physical** impression of one sort or another on the observer. Only a small minority made any voluntary mention of reduced fares, better dining car service, increase in safety, improvements in freight service or equipment, better roadbeds or other things of perhaps equal or greater importance from a railroad standpoint and to the public. It was things that an overwhelming majority could **see** and **feel** that had influenced their opinion.

This is a fact of great significance that should be highly influential in determining railway policies affecting service and public relations activities. But, of course, it is what would be expected by students of mass psychology. Some people are intelligent and thoughtful; and the intelligent and thoughtful can, and often must, be influenced by the presentation of facts and arguments. But if the railways are to have a prosperous future they must favorably influence the opinion of the masses; for the masses now, because of their political power, exert a preponderant influence on government policies that more vitally affect the railroads and every other industry than ever before. And the masses are not intelligent, do not reason, and must be influenced by what they can see and feel. Therefore, it is essential to a prosperous future for the railways that they shall constantly put on a show that can influence the masses through their sight and feelings.

More Selling of Low Railway Fares Needed

This view is strongly supported by what the survey of public opinion reports regarding what the public knows—or doesn't know—about the cost of travel by rail. Railway passenger rates have been reduced so much that average revenue per passenger-mile was almost 40 per cent less in the first two-thirds of 1941 than in the first two-thirds of 1929. Yet this report on public opinion indicates that extremely few people realize how much less it costs now than formerly to travel by rail. Most of them are unable to make any worthwhile estimates of the railway fares from their homes to the points they would most like to visit. An overwhelming majority of those who made any estimates greatly over-estimated the cost of such a trip by coach, while almost half of them over-estimated the cost of making such a trip first class. In some way or ways the competitors of the railways have succeeded in selling most of the public the belief that the difference between the cost of travel by rail, by bus or by private automobile is much more unfavorable to the railways than it is. Obviously this situation presents to passenger departments a big and important job of selling.

Effects of Passenger Service on Freight Traffic

There always has been a good deal of discussion in railway circles regarding the effects of passenger service, not only on passenger traffic, but also on freight traffic. A basis of fact for considering this question was substituted for mere theorizing by J. T. Saunders, vice-president freight traffic, Southern Pacific Company, in preparing an address delivered by him on November 12 at the annual convention of the American Association of Passenger Traffic Officers. The Southern Pacific is one of the few systems that have one vice-president in charge of freight business and another vice-president in charge of passenger business. Mr. Saunders asked every traffic officer of the Southern Pacific Company, whether freight, passenger or joint, and whether on-line or off-line, his opinion regarding the effect produced by a railway's passenger service on its freight traffic. Eighty-four per cent replied they believed that passenger service exerts an either major or minor influence on freight traffic. Their emphasis was on the value of good passenger service as a breeder of "good will." He also got the opinions of 120 traffic managers of industries throughout the country. Fourteen replied that, in their opinion, passenger service had a major effect on freight traffic; 28 that it had an important influence; 29 that it had considerable influence; and 29 that it had an influence, but not an important one. Thus, 83 per cent believed that it had an influence ranging from very little to great. The remaining 20—or 17 per cent—expressed the opinion that passenger service has no influence on freight traffic;

and this 17 per cent represent and have the routing of almost one-half of the total freight traffic represented.

Importance of Shippers' Good Will

What the survey seems to show is that the largest shippers, controlling about one-half of the freight traffic, are not influenced at all by a railway's passenger service in routing freight; but that shippers representing the other half of freight business are influenced by it, and that the smaller they are the more they are influenced. Consequently, it would appear that few railways can afford to ignore the possible, or even probable, effects of their passenger service on the attitude of shippers. While one-fifth of the shippers control one-half of the freight traffic, the other four-fifths do control the other half of it; and their "good will" may not only influence the routing of their traffic, but also may influence their attitude regarding government policies affecting the railways and competing carriers. And the attitude of four-fifths of the shippers regarding these matters may be much more important than the attitude of the other one-fifth controlling half of the traffic.

Views of Railway Executive Officers

E. E. Norris, president of the Southern Railway, delivered a striking address at the luncheon of the National Industrial Traffic League in Chicago on November 13. "We see the railroads organized to cope with any emergency," he declared. "But," he also said, "we see a competitive situation that is still grossly unfair to the railroads," and he emphasized that after the war "the railroads will have to face new and desperate competition for whatever traffic there will be." He expressed optimism that the railways will come through all right, but only because he believes they will do a good job and have the co-operation of the public, and especially the shippers, in doing so.

Interesting views regarding the future of the railways, and especially of their passenger traffic and earnings, are expressed by other railway executive officers in an article elsewhere in this issue. W. M. Jeffers, president of the Union Pacific, emphasizes the importance of what has been accomplished with both streamlined de luxe trains and low-cost service such as that provided by the Challengers. E. J. Engel, president of the Santa Fe, expresses the belief that the improvements in passenger service "have resulted in re-awakening public interest in rail travel, have enabled the railroads to retain a large amount of passenger business that otherwise would have been lost, and have helped to regain to some extent traffic which heretofore had been diverted to competing agencies." L. R. Capron, vice-president of the Burlington, refers to the increase in passenger traffic during 1941, anticipates that it will continue during 1942, and points out that all the gain cannot be attributed to the movement of troops and other causes due to the defense effort, as "travel to the western national parks and other summer vacationlands was heavier than in 1940, and commercial travel has been heavier." He illustrates his opinion by showing that the Burlington's escorted tours handled 50 per cent more vacationists this year than in 1940. F. S. McGinnis, vice-president passenger traffic of the Southern Pacific, anticipates a possible slump, but anticipates it will be temporary, for "if we take a long-range viewpoint, we must believe that we are headed upward, not downward."

F. E. Williamson Foresees "Deluge of New Competition"

F. E. Williamson, president of the New York Central, in a comparatively few words, very comprehensively discusses the traffic outlook and the problems it forecasts for the railways. For definite reasons that he gives he foresees that after the war "the railways will be deluged with new competition. . . . The ultimate loss to the air of all or nearly all the railroads' present sleeping and parlor car passengers, express, mail (at least first-class mail) and no one knows what or how much freight business, appears uncomfortably probable. . . . The problem of developing an effective course of action," he adds, "is sufficiently difficult to challenge the ingenuity of the best minds in the industry. . . . Every economically sound improvement in rail passenger transportation, particularly modern equipment of high pay-load capacity, is an essential part of that course of action. Service and merchandising methods must be made better in order to attract and retain patronage. Costs must be reduced, because low price to the public is essential to the selling of any commodity, not excepting rail transportation, in a competitive market."

Meeting the Challenge to Private Industry

All private enterprise is being challenged in this country. It is being challenged by government policies of regulation and taxation tending drastically to curtail or actually destroy profits. It is being challenged by direct government competition or by competition stimulated by unequal government regulation, government subsidies, or both. The railroads have been longer and in more ways confronted with this challenge than any other form of private enterprise. Thus far they have met it and carried on amazingly well—at times in spite of seemingly insurmountable difficulties. One of the most effective means by which they have met the challenge has been by the great improvements they have been making almost throughout the last decade in their passenger service; and what they have accomplished by this means in changing the trend of their passenger earnings, and also in changing public sentiment toward them, has been little short of a miracle.

An industry that has worked such a near-miracle can face the future with confidence that it can and will solve the problems of the future as successfully as any other private enterprise industry.

1941 ~ Another Record Year in Passenger Progress

IN the year that has intervened since the publication of the last Passenger Progress issue (on November 16, 1940) 34 new, lightweight, streamlined trains, involving 265 cars, have been put in service. This brings the total of these trains to 121, not including the streamlined connections that are operated in conjunction with many of these trains, or the large number of modernized trains that are also in operation, or the equally large fleet of trains that are operating with mixed "standard" and lightweight equipment. These 121 trains alone include 1,002 new lightweight cars in their normal consist, which, on many of them, is frequently increased unbroken record of success—this year on a larger scale than ever before. The statistical picture may be seen through a study of the figures presented in the "March of the Streamliners," a statistical presentation appearing elsewhere in this issue, but the story is one that transcends mere figures. It requires more elaborate explanation to be appreciated in its full significance.

Chicago-Florida Streamliners

Several unique developments of streamlined train operation during the year are without parallel in the previous

Table I—New Streamlined Trains Placed in Service Since September 1, 1940

No. of Trains	Train Name	Approximate No. of Cars Involved	Operated Between	Railroad
1	City of Los Angeles	17	Chicago-Los Angeles	C. & N. W.-U. P.
1	City of San Francisco	17	Chicago-San Francisco	C. & N. W.-U. P.-S. P.
2	San Joaquin Daylight	22	Oakland-Los Angeles	S. P.
2	Lark	36	San Francisco-Los Angeles	S. P.
2	Oakland Lark	8	Oakland-Los Angeles	S. P.
1	St. Louis-St. Paul Zephyr	8	St. Louis-St. Paul-Minneapolis	C B. & Q.-C. R. I. & P.
1	St. Louis-St. Paul Rocket	8	St. Louis-St. Paul-Minneapolis	C. R. I. & P.-C. B. & Q
2	Choctaw Rocket	12	Memphis-Amarillo	C. R. I. & P.
2	Arizona Limited	14	Chicago-Phoenix	C. R. I. & P.-S. P.
1	City of Miami	7	Chicago-Miami	I. C.-C. of Ga.-A. C. L.-F. E. C.
1	South Wind	7	Chicago-Miami	Pa.-L. & N.-A. C. L.-F. E. C.
1	Dixie Flagler	7	Chicago-Miami	C. & E. I.-L. & N.-N. C. & St. L.-A. B. & C.-A. C. L.-F. E. C.
1	Delta Eagle	3	Memphis-Tallulah	M. P.
2	Electroliner	6	Chicago-Milwaukee	C. N. S. & M.
3	Southerner	24	New York-New Orleans	Sou.-Penna.
3	Tennessean	27	Washington-Memphis	Sou.-N. & W.
1	Land O' Corn	2	Chicago-Waterloo	I. C.
1	James Whitcomb Riley	7	Chicago-Cincinnati	N. Y. C.
2	Mid-West Hiawatha	18	Chicago-Omaha-Sioux Falls	C. M. St. P. & P.
1	San Diegan	7	Los Angeles-San Diego	A. T. & S. F.
1	Ak-Sar-Ben Zephyr	4	Lincoln-Chicago	C. B. & Q.
1	Illini	1	Chicago-Champaign	I. C.
1	Miss Lou	1	New Orleans-Jackson, Miss.	I. C.
34		263		

NOTE—As heretofore, the Twentieth Century and Broadway Limiteds were re-equipped during the year. Also large orders for lightweight equipment for various trains were delivered: Union Pacific, 100 cars; New York Central, 95 cars, etc. Orders were also placed to increase materially the size of the Champions and Silver Meteors.

as traffic demands. Moreover, there are now being built, subject to the inevitable priorities, 26 additional trains, involving 233 more cars. Today, too, the railways of America are operating approximately 75,000 miles of mile-a-minute or better passenger runs a day, as compared with 63,000 miles in 1940, and 55,000 miles in 1939.

These figures and statements, which are presented in greater detail in Tables 1 and 2, present an optimistic

short but romantic and eventful history of these trains. One of the most unusual features was the inauguration of Chicago-Florida streamlined service on a co-operative basis not heretofore attempted. It requires three trains to protect daily service on the Chicago-Miami run of nearly 1,500 miles, and, under unreasoning competitive conditions, for which there are plenty of precedents, new service on the three routes would have involved nine trains, with a heavy investment and with no as-

Table 2—New Streamlined Trains On Order As of November 1, 1941

No. of Trains	Train Name	Approximate No. of Cars Involved	Operated Between	Railroad
5	Wisconsin-Minnesota "400"	30	Not yet announced	C. & N. W.
2	Empire State Express	32	New York-Buffalo-Cleveland-Detroit	N. Y. C.
2	Prospectors	4	Denver-Salt Lake City	D. & R. G. W.
2	Colorado Eagles	14	St. Louis-Denver	M. P.
1	Lincoln Eagle	1	Union-Lincoln	M. P.
2	Panama Limiteds	22	Chicago-New Orleans	I. C.
6	Overland Limiteds	84	Chicago-San Francisco	C. & N. W.-U. P.-S. P.
3	Golden State Limiteds	28	Chicago-Los Angeles	C. R. I. & P.-S. P.
3	Tamiami Champions (West Coast)	18	New York-Tampa-St. Petersburg	Penna.-A. C. L.
26		233		

NOTE—In addition, orders have been placed for re-equipping the Chief and Super Chief of the A. T. & S. F.

picture of the last year's developments and a large measure of hopefulness for the future of passenger progress. This is also to be borne out by the accompanying map showing the spread of streamlined operation.

The picture with relation to the streamliners since the publication of the last Passenger Progress issue has changed materially; yet it presents the same practically

surance that such a heavy expenditure would prove worthwhile for any of the lines involved.

What actually happened was quite different and far more sensible. Each of the three lines involved as originating carriers from Chicago procured one train. Joint schedules were then evolved in collaboration and, although each of the trains operates over a different

Interest in Streamliners Remains as Great as Ever

route north of Jacksonville, the result is a daily service between the two termini—Chicago and Miami—in each direction by fast, streamlined trains.

The "sailing" dates of each train were drawn by lot. It is interesting to note that while the line which drew the Christmas sailing date out of Chicago was somewhat apprehensive of having to run a practically empty train that day, instead, every seat was sold nearly a week before the departure of the train. The trains were established at the beginning of the Florida winter season and it was generally accepted that they would be removed from this service at the end of the season, or at least that some curtailment of the service would be made. Perhaps the most outstanding proof of the success of these trains is the fact that they have been running every day with unreduced consists, and, throughout the summer season, have carried more than enough passengers to convince the respective managements of the numerous lines involved that they are paying their way, even during the period when traffic might be expected to be light.

Taking the height of the Florida winter season (December 17 to February 28) as an example, the effect of the new streamliners was to increase Chicago-Florida travel 35 per cent on the nine railways comprising the three routes in the 1940-41 season, as compared with the 1939-40 season. During this period, the revenues of the three trains averaged approximately $3.25 per mile each in the territory where the 2-cent per mile rate applies, and to about $2.25 per mile over the entire distance traversed in both the 1½-cent and 2-cent fare territories.

An interesting example of the traffic fluctuation with the seasons on one of these trains is the number of passengers carried by the City of Miami, operating once every three days in each direction, over an intermediate line, the Central of Georgia, between Birmingham, Ala., and Albany, Ga., as follows:

	Southbound	Northbound
January	2,018	1,886
February	2,137	1,854
March	1,933	2,113
April	1,052	2,047
May	776	1,792
June	1,223	1,783
July	1,880	2,105

From the inception of this train in the middle of December, 1940, to August 1, 1941, the passengers on the C. of Ga. have average 158 per trip southbound and 187 northbound, and the revenue per train mile has averaged $1.98 southbound and $2.22 northbound.

The Florida East Coast is the only railway which handles all three of the Chicago-Florida streamliners. Taking both summer and winter operations into consideration, and for the period from December 17, 1940, to July 31, 1941, the following gives a picture of the operations of the three trains on this railway:

Total passengers handled:	86,335
Total passenger miles:	25,650,000
Average passengers per train:	191
Revenue per train mile:	$2.49

The success of the co-operative scheduling plan has had its effect in the development of a further unique schedule-pooling arrangement for all Chicago-Florida trains on these routes, which will go into effect on December 17, 1941. The routes involved are:

C.&E.I.—L.&N.—N.C.&St.L.—A.B.&C.—A.C.L.—F.E.C.
I.C.—C. of Ga.—A.C.L.—F.E.C.
Penna.—L.&N.—A.C.L.—F.E.C.

The new joint scheduling provides for the departure of two sleeper-coach trains, and one coach-streamliner daily over each of the three routes in turn, as is now done with the present streamliners. The service for through Chicago-Jacksonville-Miami passengers will be unimpaired and yet a total of 43 passenger cars will be released for use in handling the additional traffic load brought about by national defense and military travel.

New York-Florida Service

The Silver Meteors of the Seaboard and the Champions of the A. C. L.-F. E. C., operating between New York and Florida also enjoyed a high percentage of occupancy throughout the last winter season, even though all these trains had been doubled in size prior to that season. The first New York-Florida streamlined service was begun with one seven-car Silver

Meteor on February 2, 1939, and comprised alternate trips on specified sailing dates between New York-Miami and New York-St. Petersburg. For the 1939-40 winter season, this service was increased to daily departures of seven-car trains between New York and Miami, on both the Seaboard and the A. C. L.-F. E. C., or six trains in all. Then, for the 1940-41 season, each of these six trains was doubled in capacity and for the 1941-42 season, these trains will again be enlarged by coaches now being turned out by the manufacturer, so that daily 16 and 17-car trains will be available on the two routes. The A. C. L. will also add a new daily 8-car streamlined train between New York and Tampa, with a St. Petersburg connection.

So far, no saturation point seems to be in sight. For example, while the Champion was a 7-car train, between December, 1939, and December, 1940, the earnings were $2.60 per train mile on the F. E. C. From January to May, 1941, as a 14-car unit, this train earned $5.34 per mile. It must be borne in mind, too, that for several years, the A. C. L.-F. E. C. have been operating a daily high-speed train, the Vacationer, with standard weight, modernized all-coach equipment, which has also been showing a high standard of occupancy. It is pertinent to mention at this point that the 1940 passenger revenues of the A. C. L. and the Seaboard showed 21 and 19.2 per cent increases respectively over the previous year, and the 1940 revenues of the Seaboard were considerably over those of 1939.

These trains operate throughout the year. However, on May 6, 1941, the Seaboard added three sleeping cars to the consist of the Silver Meteor, one operating between New York and Miami and two between New York and St. Petersburg, this latter service being protected by a connecting train of a streamlined steam locomotive, five coaches and two sleepers, between Wildwood and St. Petersburg. This operation will be continued throughout the winter season. The effect of changes in consist and of the seasons are apparent on the Silver Meteors. From August through November, 1940, this train consisted of 7 cars, and averaged 176 passengers per trip. On December 1, 1940, it was increased to 14 cars, and from then through April, 1941, averaged 385 passengers per trip. When the consist was changed again for the summer season, the average still remained high, having been 316 passengers per trip from May 1, 1941, to September 1.

Similarly, on May 2, the A. C. L. rechristened its Champions as the "Tamiami Champions," and operated them in East Coast and West Coast sections, the former continuing the regular New York-Miami run, with the addition of sleeping cars, and the latter serving Tampa, via Orlando, and St. Petersburg via Gainesville, Ocala and Leesburg. On December 12, 1941, the Champions will be restored to their regular New York-Miami runs and will again be operated as all-coach trains. Co-incident with these changes, from 1 to 3½ hours have been cut from the schedules of the important New York-Florida trains on both routes.

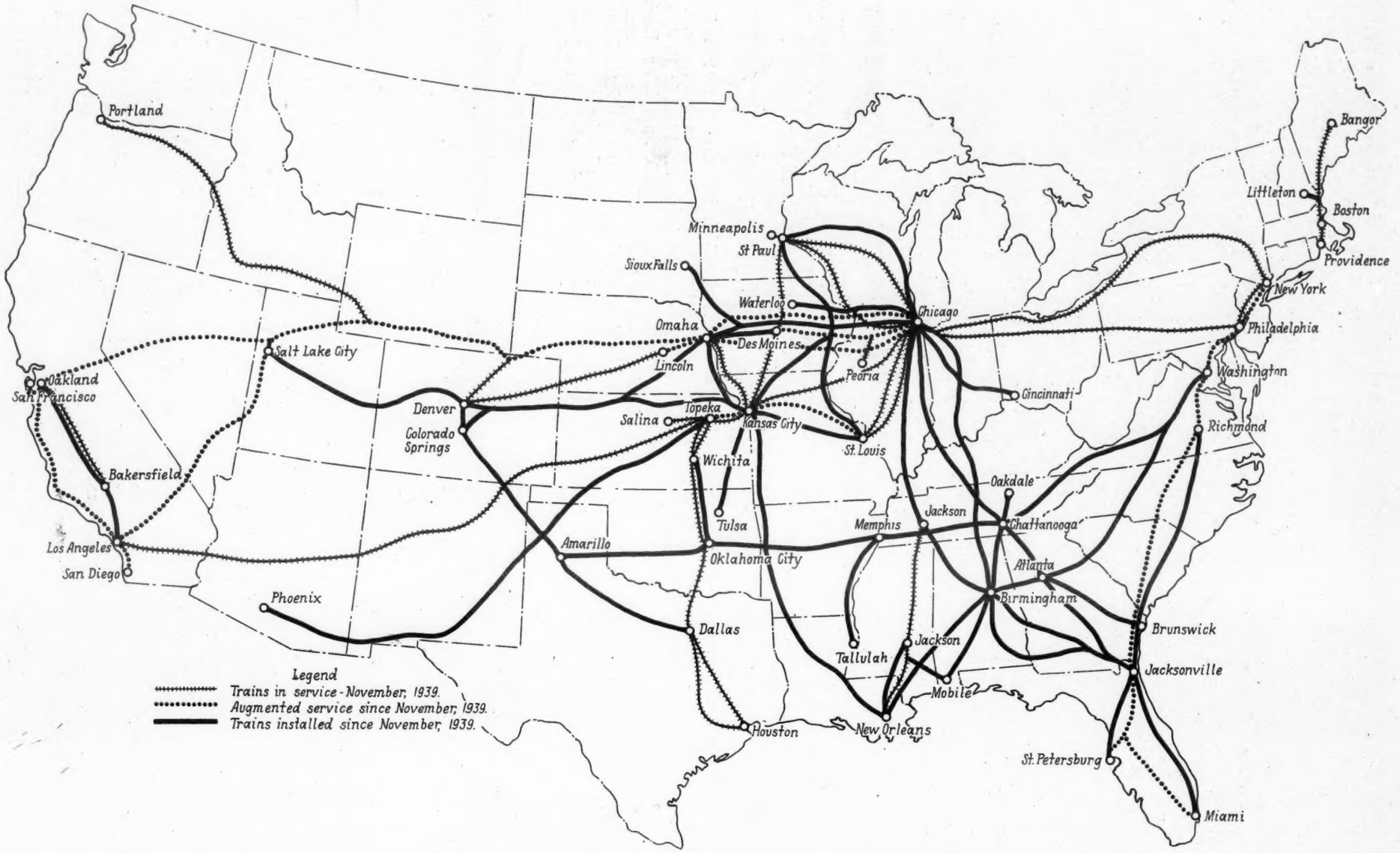
Other Resort Trains

In quite a different manner, the Arizona Limiteds of the Rock Island-Southern Pacific route proved the success of streamlined operation between Chicago and Phoenix, Ariz. These two all-room sleeping car trains were operated on a high-speed schedule throughout the winter, with departures from each terminal every second day. Unlike Florida, Arizona makes no claims of being a summer resort, so that these trains were taken off after the winter season was over. Even so, the date of their discontinuance was postponed 15 days when actual traffic and advance reservations indicated that the service could be continued with profit.

These trains will resume operations for the 1941-42 season on December 15.

The Rock Island, which has extensive streamlined operations, originally confined them to coach trains. The Rocky Mountain Rocket, inaugurated late in 1939, was the first departure from this practice, providing sleeping car service between Chicago-Kansas City and Denver-Colorado Springs. During the last year, in addition to the all-Pullman, all-room Arizona Limiteds, streamlined sleeping car service was further extended by the inaugu-

The Florida Streamliners All Enjoyed a Record Year



In 1939, After Five Years of Passenger Progress, the Country's Streamliners Occupied Only a Relatively Small Part of the Map. A Glance at Today's Map Shows Not Only the Progress Made Since 1934, But Also the Great Strides that Have Been Made in the Last Two Years

ration of the Choctaw Rockets, with coaches and sleeping cars between Memphis, Tenn., and Amarillo, Texas, and by the St. Louis-Minneapolis Rocket, which, in conjunction with a new Burlington Zephyr, provides coach and sleeping car service between St. Louis and the Twin Cities.

Chicago-Omaha Service

Although the Chicago & North Western, the Burlington and the Rock Island have operated streamliners between Chicago and Omaha, enroute to other destinations, for a number of years, there was no exclusive Chicago-Omaha streamliner service until the Milwaukee inaugurated the Mid-West Hiawatha late in 1940, on an 8-hr. schedule. The Burlington thereupon inaugurated the Ak-Sar-Ben Zephyr, a new streamliner, eastbound which, operating from Lincoln, Nebr., to Chicago, gives a comparable 8-hr. schedule from Omaha to Chicago. Westbound, the Exposition Flyer, consisting largely of streamlined equipment, was speeded up to meet the 8-hr. running time of the Milwaukee

The Mid-West Hiawatha supplies an interesting example of the wide territory served by fast schedules and modern equipment. This train operates between Chicago and Manilla, Iowa, as a unit. From Manilla, one section continues to Omaha, and another branches off to Sioux Falls, S. D., via Sioux City, Iowa. A Hiawatha connection is operated between Madrid, Iowa, and Des Moines; two bus connections, from Savanna, Ill., and Marion, Iowa, respectively, give Dubuque, Iowa, and Cedar Rapids the advantage of this service. Still another bus connection from Davis Junction, Ill., to Rockford gives that city the equivalent of streamlined service. Before the operation of this train, it required two nights and a day to travel between Chicago and Rapid City, S. D., and other points in the Black Hills, but connections with the Mid-West Hiawatha now reduce this trip to one night and one day.

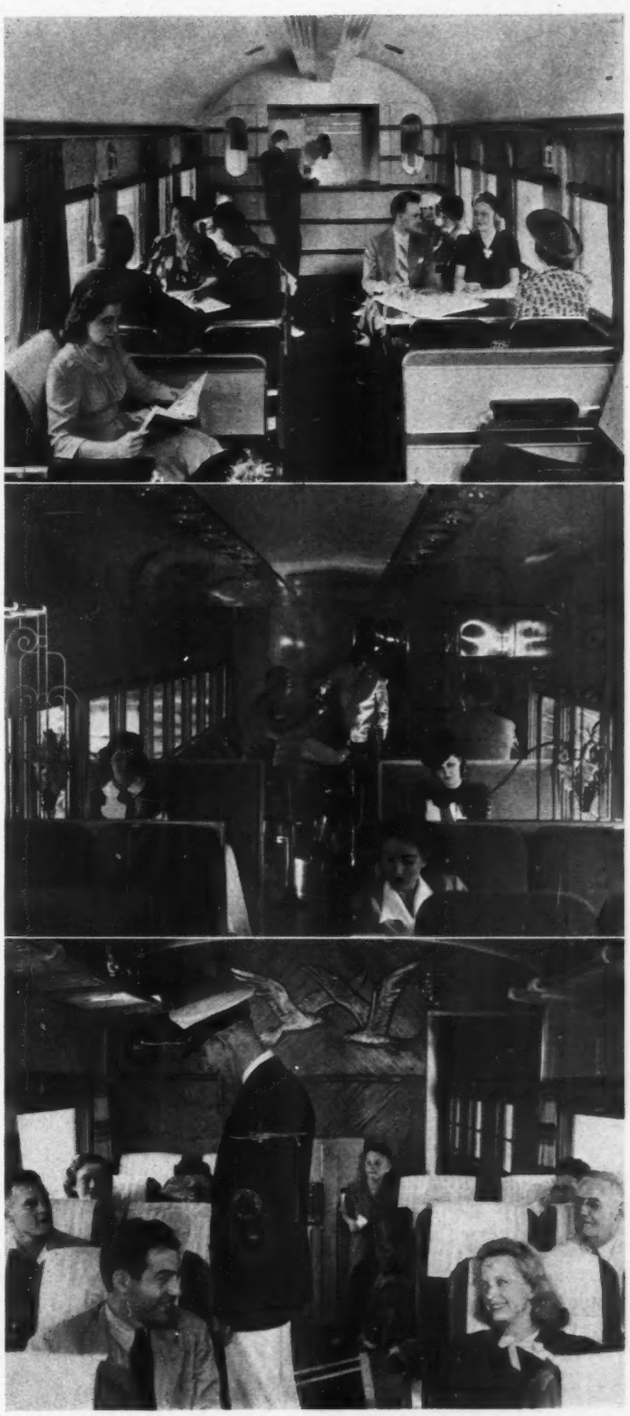
Streamliners in the South

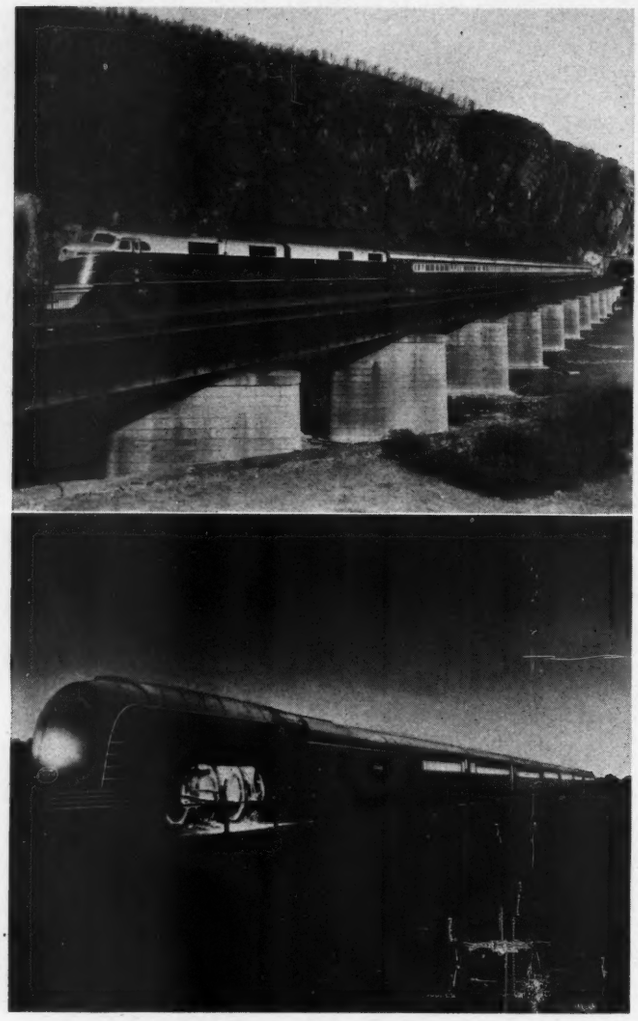
In the Southeast, a further development of the year was the installation by the Southern of the Tennesseans and the Southerners. The outstanding success of these trains is indicated in the statistical section, and it is interesting because of the different purposes the trains were intended to serve. The Southerners are high-speed, de luxe all-coach trains, operating between New York and New Orleans on an entirely new schedule in connection with the Pennsylvania north of Washington, D. C., and they have made their record in the summer season only when, presumably, travel is lighter to the South than in the winter months. The Tennesseans, on the other hand, while also providing de luxe coach service, replaced an existing standard train, the Memphis Special, that had been operating between Washington and Memphis for years, and took over the Pullman service formerly operated on that train. It is significant that these new trains, which afford a comparison with former standard service, have averaged more than twice as many passengers as were handled previously on the Memphis Special, without any apparent adverse effect on other trains over the same route.

The influence of streamlined trains on various gateways is again demonstrated in the operation of these trains. For example, since the Southerner makes close connections at New Orleans with the streamlined Southern Belles of the K. C. S.-L. & A., numerous passengers from the east destined for points between New Orleans and Shreveport have been diverted via this gateway. Similarly, upon the establishment of the Tennessean, the St. Louis Southwestern inaugurated its modernized Morning Star on a much faster schedule than that of the train it supplanted, providing one-night service between Washington and Dallas, Texas, for the first time via the Memphis gateway.

Arkansas also benefited this year by the inauguration of the Delta Eagle of the Missouri Pacific, which serves a territory in the state that was hitherto without through passenger service; while the Choctaw Rocket of the C. R. I. & P., previously referred to, bisects Arkansas

Among the Outstanding Developments of the Year Are the New Coach-Lounge-Diners and Even More Attractive Interior Finishings





Modernized Trains, Such as the Capitol Limited of the B. & O., the Mercury of the New York Central and Many Others, Show Good Earning Records This Year

from East to West and gives many communities the benefit of streamlined service.

Streamliners in the Far West

One of the outstanding developments in the far west this year was the inauguration of new 17-car Cities of Los Angeles and San Francisco. The new "Los Angeles" (C. & N. W.-U. P.) supplanted a smaller streamliner on the same schedule and gives greater capacity in this service. The new "San Francisco" (C. & N. W.-U. P.-S. P.) supplanted the "Forty-Niner" and gave the San Francisco-Chicago run two 39¾ hr. trains for the first time. The City of Portland equipment has also been improved in the course of this rearrangement. The operation of these 39¾ hr. trains from Chicago to the Pacific Coast requires high-speed operation throughout.

On the Union Pacific, for example, all of the seven long-distance "City" trains are now scheduled at overall speeds of more than 60 m. p. h., for distances up to 990 miles. The fastest train is the City of Denver, which averages 68.5 m. p. h. from Omaha to Denver, 560 miles, and 73 m. p. h. from Denver to Omaha.

The Southern Pacific also was very active in installing new streamliners. These included the 18-car Lark, an overnight all-Pullman train between San Francisco and Los Angeles via the Coast Line, and the San Joaquin Daylights, between the same two cities, via the Valley Line. The Santa Fe, which inaugurated its original San Diegan on March 27, 1938, made successive increases in the size of this train until its normal consist was nine cars. The traffic continued to grow until, on June 8, 1941, a second nine-car train was installed on the Los Angeles-San Diego run, each of the two trains now making two round trips daily.

Other Streamliners

The Twentieth Century and Broadway Limiteds of the New York Central and Pennsylvania, under the plan described in previous issues, were completely re-equipped during the last year, the equipment thus released being transferred to the large fleets of other de luxe trains on these railways. None of these other trains are as yet completely streamlined, but new, lightweight equipment makes up most of the consist on all of them. The new South Wind of the Pennsylvania has been previously described among the Chicago-Florida trains. The N. Y. C. also established the James Whitcomb Riley between Chicago and Cincinnati, which, in connection with the Chicago-Twin Cities streamliners, permits a traveler to leave either Cincinnati or Minneapolis in the morning and arrive at the other terminal the same evening, a distance of more than 700 miles.

The Flying Yankee of the Boston & Maine-Maine Central, which is operated between Boston, Mass., and Bangor, Me., during the winter season, was formerly operated between Boston and Littleton and Bethlehem, N. H., as the Mountaineer, in the summertime. This summer, based on the demands of traffic, the train operated as the Mountaineer on Friday, Saturday and Sunday, was serviced on Monday and operated as the Flying Yankee on Tuesday, Wednesday and Thursday.

The suburban-service streamliners of the New York, Susquehanna & Western continue to show excellent results. As an indication, the space at the parking lot at Paterson, N. J., where commuters drive to catch their trains, has had to be enlarged twice since the streamliners were put on. Another successful undertaking in what might almost be termed suburban service is found in the Electroliners of the Chicago, North Shore & Milwaukee. These all-electric, luxury trains are the first of their kind ever to be built. They were especially designed to meet the peculiar needs of a heavy, relatively short-haul traffic that moves every day between the metropolitan areas of Chicago, Milwaukee and intermediate cities. In Chicago, they operate over the elevated railway tracks for 12.04 miles and, in Milwaukee, over city streets for 2.8 miles; yet their runs are made in fast time. Aside from earning a total of $226,260 from February 9, 1941, to October 18, the new trains have noticeably stimulated employee morale and have restored prestige to the railroad.

More Statistics

"The March of the Streamliners," the following article in this issue, contains many statistics as to the new streamliners. There are, however, certain other highlights of the last year from a statistical standpoint that are worthy of mention in connection with the new trains. For example, on September 24, the second birthday of the North Western's "400," announcement was made that August was the biggest month in the history of these trains, 12 per cent more passengers being carried than in August, 1940. Since the initial run of September 24, 1939, the "400" has carried 58 per cent more

passengers than in the comparable two-year period during which the train was operated with standard equipment.

The first and fourth birthdays of the Southern Pacific's Morning and Noon Daylights respectively were celebrated in March of this year. Between March 21, 1937, and March 21, 1941, the original Daylights carried 1,309,342 passengers on their Los Angeles-San Francisco runs. In their first year of operation, the Noon Daylights carried 198,822 passengers. Between them, the Daylights had run up a total of 591,333,597 passenger miles, and had traveled a total of 1,935,589 train miles up to March of this year, or the equivalent of more than 77 times around the world.

The Rocket trains of the Rock Island have earned a return on the investment as high as 48 per cent, according to a report made by the trustees to the court on May 9. The six original Rockets earned a total of $2,755,341, after deducting costs of operation, depreciation, interest, taxes and insurance, during the period from September, 1937, to December 31, 1940. The annual net income has averaged $848,000, which is equal to 36 per cent of the investment of $2,321,328. The Rocky Mountain Rockets, which were placed in service on November 12, 1939, earned a net of $490,701 up to December 31, 1940, while the average annual net income was $430,550, or 48 per cent of the investment of $887,481.

The Hiawathas of the C. M. St. P. & P. established a new high in August, 1941, when the Afternoon Hiawatha carried 38,472 revenue passengers, as compared with the previous high of 36,508 in August, 1937. The Morning Hiawatha carried 22,456 revenue passengers, as compared with the previous high of 19,648 in August, 1940.

Trains to Come

Nowadays, everything under construction, or even on the drafting board, is governed by priorities, and, until this vexing question is settled, predictions as to the exact dates when new trains will be completed and go into service are impossible to make.

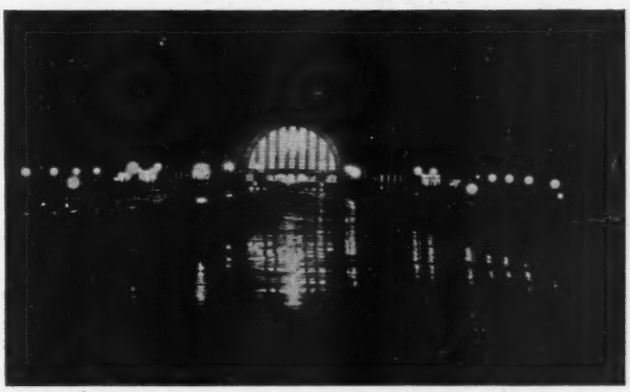
In any event, equipment for the following trains has been ordered and the cars involved range through all the various stages of construction. The Overland Limited of the C. & N. W.-U. P.-S. P.; the Golden State Limited of the C. R. I. & P.-S. P., and the Panama Limited of the Illinois Central are all to be streamlined shortly, depending again on the procurement of materials, and the Super Chief and Chief of the Santa Fe are to receive complete new sets of streamlined equipment, which, of course, will release the present equipment of these trains for use on other trains This involves well over 200 new, streamlined, lightweight cars. The Overland and Golden State Limiteds will be the first of the first-class, non-extra-fare trains between Chicago and California to be streamlined. They represent the initial move in a plan that has been developing for some time to establish three distinct classes of trans-continental service, namely, high-speed, extra-fare, de luxe trains; streamlined non-extra fare trains on a somewhat slower schedule, for first-class passengers; and all-coach trains of either the Challenger or the streamlined El Capitan type for passengers desiring economic travel. The realization of this plan in its entirety will give the transcontinental railway passenger a wide variety of service, at whatever speed the urgency of his trip requires, and at a wide range of prices suitable to his purse.

New equipment of the "400" type for the Chicago & North Western, which is now being delivered by the builder, will soon be used in high-speed service between Chicago-Milwaukee-Green Bay and the upper Michigan peninsula via the Fox River Valley and the Shore Line routes. It will also permit the streamlining of the "Minnesota 400," operating between Wyeville, Wis., and Mankato, Minn. The new Colorado Eagles of the Missouri Pacific will also be placed in operation soon between St. Louis and Denver on high-speed schedules, with mid-afternoon departure from St. Louis and early morning arrival at Denver, westbound; and late afternoon departure from Denver and mid-day arrival at St. Louis. This will give the Missouri Pacific patrons two streamlined schedules daily between Kansas City and St. Louis.

The Denver & Rio Grande Western will inaugurate an interesting new type of service before the first of the year with its Prospector, an extremely compact and complete unit that includes in its two cars a power plant, a chair car and dining, lounge and sleeper accommodations, including rooms as well as open sections. When the Exposition Flyer was speeded up a few years ago, it left the D. & R. G. W. without overnight service between Denver and Salt Lake City, via the fast Moffett tunnel route, and the new streamliners will remedy this, as well as giving close connections for Denver-Los Angeles passengers.

The Empire States

In the East, the streamlining of the Empire State Limiteds of the New York Central marks the first non-extra fare service of this kind between New York and Buffalo. The care with which the economics of this purchase were worked out supplies an interesting contrast to the very early purchases of streamlined trains when they were an unknown quantity. After all, the



Whatever the Weather, the Railway Station Bids the Traveler Welcome, with Assurance of a Safe Journey

expenditure of a million dollars for passenger equipment is not to be undertaken lightly. The pioneers deserve every possible credit for their prophetic vision and the courage of their convictions in carrying out what seemed to many railway executives at the time as an extremely risky experiment. The purchase of new trains is no longer an experiment, and the steps that were taken in determining the purchase of the Empire State Limiteds were reduced to a scientific formula, as will be described in a forthcoming article in the *Railway Age*. This involved a careful study of each factor from an economic standpoint, and, as finally worked out, presents a model on which such economic studies may well be based in the future. Provision is also being made

for a scientific judgment of the results of the new trains. Records will be kept of tickets sold between all principal stations on the railroad during representative months before and after the new train goes into operation. Comparison of the trend in ticket sales between the points served by the new Empire with the trend for the railway as a whole will afford an accurate index of the train's performance.

Other Lightweight Equipment

In addition to the new, completely streamlined trains delivered or on order this year, the purchases of lightweight equipment have been unusually heavy. The Union Pacific installed 100 new lightweight cars in its Challenger service and on other trains. The Burlington now operates much lightweight equipment on its Exposition Flyer and its western connections, the D. & R. G. W. and the Western Pacific, have also contributed their quotas of lightweight equipment to this train. The Santa Fe, the Southern Pacific and the Rock Island have added lightweight cars to several trains.

The Norfolk & Western is now receiving delivery of 15 lightweight cars, which will be run between Cincinnati and Norfolk on the Pocahontas and the Cavalier, and the New York Central has received most of its order for 95 cars which are being installed in various trains.

Pullman Progress

The Pullman Company has kept pace with the modernization of passenger coach service and now owns and operates 451 lightweight, streamlined cars, with 178 additional cars scheduled for future delivery, subject to the procurement of necessary materials under the existing priority difficulties. In addition, a number of rebuilt, modernized Pullman cars are now being operated on numerous trains throughout the country. The present railroad assignment of new, lightweight cars includes the following:

Railroad Assignment	No. of Cars
Pennsylvania	142
New York Central	142
A. T. & S. F.	59
C. & N. W.-U. P.-S. P. streamliners	54
Southern Pacific	26
C. R. I. & P.	10
B. & O.	4
N. Y. C. & St. L.	2
Unassigned	12
	451

The change in passenger demand in relatively recent times is clearly indicated by the fact that only a few of these cars contain open sections and none of the new cars on order are straight open-section cars. The demand for room type accommodations is great and the Pullman Company is satisfying this demand as rapidly as possible. The popularity of the various types of accommodations and the trend in passenger demand may be determined from an analysis of the lightweight cars now operating and on order, as follows:

Type of Accommodation	No. of Units
Double Bedrooms	2,236
Roomettes	2,887
Compartments	588
Drawing Rooms	296
Duplex Rooms	266
Sections	1,116

It will be observed that, in the new cars, the percentage of room accommodations is much higher than heretofore. Counting master bedrooms and other special room accommodations, the total number of units amounts to about 6,300 room accommodations, as compared with only about 1,100 sections. A further development of room-type accommodations may be expected when the duplex-roomette cars, of which the first are now under construction, are produced in quantities. These cars are equipped with 24 roomettes per car, and with the high percentage of roomette occupancy shown wherever such space has been made available, should prove popular.

Sleeping car service is now available on 22 of the streamlined trains listed under "The March of the Streamliners," as follows:

Super Chief (A. T. & S. F.)
Chief (A. T. & S. F.)
General Pershing Zephyr (C. B. & Q.)
Denver Zephyr (C. B. & Q.)
City of Denver (C. & N. W.-U. P.)
City of San Francisco (C. & N. W.-U. P.-S. P.)
City of Los Angeles (C. & N. W.-U. P.)
City of Portland (C. & N. W.-U. P.)
St. Louis-Minneapolis Zephyr (C. R. I. & P.-C. B. & Q.)
St. Louis-Minneapolis Rocket (C. R. I. & P.-C. B. & Q.)
Rocky Mountain Rocket (C. R. I. & P.)
Choctaw Rocket (C. R. I. & P.)
Rebel (G. M. & O.)
Twentieth Century Limited (N. Y. C.)
Broadway Limited (Penna.)
Tennessean (Sou.)
Southern Belle (K. C. S.-L. & A.)
Tamiami Champion (East Coast) (A. C. L.)
Tamiami Champion (West Coast) (A. C. L.)
Silver Meteor (S. A. L.)

The Modernized Trains

Modernized trains put in service during the year included the Jeffersonian of the Pennsylvania and The Red Bird of the Pennsylvania-Wabash. The Jeffersonian (3 trains) is an all-coach train, operated between New York and St. Louis on a schedule of 20 hr. and 15 min. for the 1,051 miles. The train has the same equipment as used on the Trail Blazer, the Pennsylvania's all-coach train between Chicago and New York. Both trains carry through coaches to and from Washington. The Trail Blazers were re-equipped during the year. More than 300,000 passengers were carried on these trains in the first two years of their operation (July, 1939-July, 1941). During the first year, the Trail

Mural Decorations Add to Attractiveness of Modern Lounge Cars

Blazer carried 132,000 passengers, which was increased to 175,000 in the second year. In its second 12 months of operation, the Trail Blazer carried more than 500 passengers on 53 separate trips, requiring the movement of two and three sections on a number of occasions. Patronage this year has been running more than 50 per cent over last year. The Red Bird is a 4 hr. 45 min. train

Tourist Travel to Western Scenic Spots Reached a High Level Last Summer

between Chicago and Detroit, 295 miles, or an overall average speed of 61.8 m.p.h. In addition to coach-lounges and other cars of the Trail Blazer type, it also carries parlor cars for first-class passengers.

The Pacemaker of the New York Central was re-equipped this year with new, lightweight, streamlined cars, the diners and lounge cars being rebuilt equipment. The new coaches came from the lot of 95 previously mentioned, and by January 1, 1942, the N. Y. C. will have 130 new, lightweight, streamlined coaches in service on its various trains.

The outstanding success of the Pacemaker is shown in the following figures, which are for the year ending June 30, in each instance:

	Passengers	Earnings	Revenue Per Train Mile
1940	114,095	$1,389,263	$2.18
1941	167,454	1,948,457	2.74
Increase	53,359	559,194	
Percentage	46.9	40.3	

The Mercury of the New York Central, which was extended during 1940 by the addition of another train, is also doing an excellent business. The earnings per train mile were $3.36 for the year ending June 30, 1940, and $3.68 for the year ending June 30, 1941. In the first year of operation of the extended Chicago-Cleveland service, the Mercuries carried 266,008 passengers and earned gross revenue of $1,125,425. On the Chicago-Detroit run, 156,180 passengers were handled, with passenger revenue of $754,458. On the Cleveland-Detroit run, 109,828 passengers were handled, with passenger revenue of $370,967.

The Challengers of the U. P.-C. & N. W.-S. P. have been equipped with many new lightweight cars and, as a result, the number of through coach passengers handled on these routes to San Francisco has increased several hundred per cent. The Coaster and the Beaver of the Southern Pacific continue their satisfactory careers, while, in many other sections of the country, rebuilt, modernized trains are in successful operation. One of the latest of these is the New York-Chattanooga-New Orleans Limited of the Southern, which also operates over the Norfolk & Western as an intermediate line. These trains were equipped with modernized cars in May, 1941.

The modernized fleet of the Baltimore & Ohio, led by the Capitol Limited between Washington and Chicago, has continued its successful progress. The Capitol, on one day in the past year, handled 1,303 passengers in six sections. The Columbian, formerly on the New York-Washington run, has been put in the shops for redesigning preparatory to taking over another run shortly. Buffet-coach-lounge cars have been added to the Diplomat and the Shenandoah, and Diesel-electric power is being used increasingly. The B. & O. now operates 14 Diesel-electrics on 10 through trains between the East and the West and 4 between Washington and New York. The locomotive on the Capitol Limited recently completed one year (365 continuous days) of operation, making the 772 miles between Chicago and Washington daily, hauling the train 563,560 miles, with a maximum of 6½ hr. for servicing during the entire period.

General Service Details

The advancing strides of air-conditioning have been continued, despite unsettled conditions. As of July 1, 1941, there were 12,511 air-conditioned passenger cars

operating in the United States, an increase of 525 since July 1, 1940, and of 311 since January 1, 1941. Of this total, the Class I railways owned 7,266 cars, an increase of 414 since last year and the Pullman Company owned 5,245, an increase of 111 over the previous year.

Apart from the service improvements brought about by streamliners heretofore mentioned, passenger progress was continued in many parts of the country by means of cutting minutes and hours from the schedules of a wide variety of trains. When these reductions in the time of "standard" trains are added to the time cut by the streamliners, it may truthfully be said that no other year has witnessed as great a shrinking of the passenger map as the present one. Specific examples are to be found in all sections of the country. An important improvement has been effected in the Boston-Philadelphia-Baltimore-Washington schedules of the New Haven and the Pennsylvania. A new high-speed train, the Patriot, established on April 27, 1941, now affords the fastest service ever operated between those cities.

In the Land of the Bean and the Cod

With the growth of Philadelphia-Boston sleeping car business, the New Englander and the Quaker, two new trains, were established on September 28, and the Federal, between Washington and Boston, was scheduled to leave Washington at 11 p.m., the latest departure ever afforded to New England points. Following the introduction of every-hour-on-the-hour service between New York and Boston, the New Haven has materially improved its New York-Springfield service, with many schedules shortened and the introduction of the Nathan Hale, a high-speed train between those points. Sleeping cars were also established for the first time between Providence and Philadelphia and Washington. Meanwhile, a new train, the Pennsylvanian, has been inaugurated from Chicago to New York-Washington, leaving Chicago at 5:30 p.m. The Pennsylvania also extended its hourly fleet of trains from New York to Washington with the Constitution, leaving New York at 8:30 p.m.

The Baltimore & Ohio on April 27 inaugurated a new day train, the Washingtonian, between Baltimore-Washington and Cleveland, and cut down the schedule of the Washington-St. Louis and the Detroit-Cincinnati trains. The B. & O. has added roomette service between Baltimore-Washington and Detroit, and the Nickel Plate now operates roomette cars between Chicago and Cleveland.

In the Mississippi Basin

In the West, the C. & N. W. has speeded up its Corn King Limited between Chicago and Omaha-Sioux City nearly two hours. The Missouri Pacific has continued its program of modernization and put several reconditioned trains in service this year. The eastbound Exposition Flyer of the W. P.-D. & R. G. W.-C. B. & Q. was speeded up 2 hr. 35 min., and the Advance Flyer was inaugurated from Chicago to Omaha-Lincoln, making the 496-mile run, Chicago to Omaha, in 8 hr., or at an overall speed of 62 m.p.h. The M-K-T has continued its equipment modernization program which has included units with a full kitchen and pantry, now operated with 16 diner seats and 13 lounge seats, but so arranged that they may be transformed quickly into either a full diner or a full lounge car, as traffic demands. The Texas & Pacific has shortened its Louisiana Limited schedule by one hour between Shreveport and New Orleans, and the Great Northern has taken nearly an hour off an already tight schedule between St. Paul and Duluth.

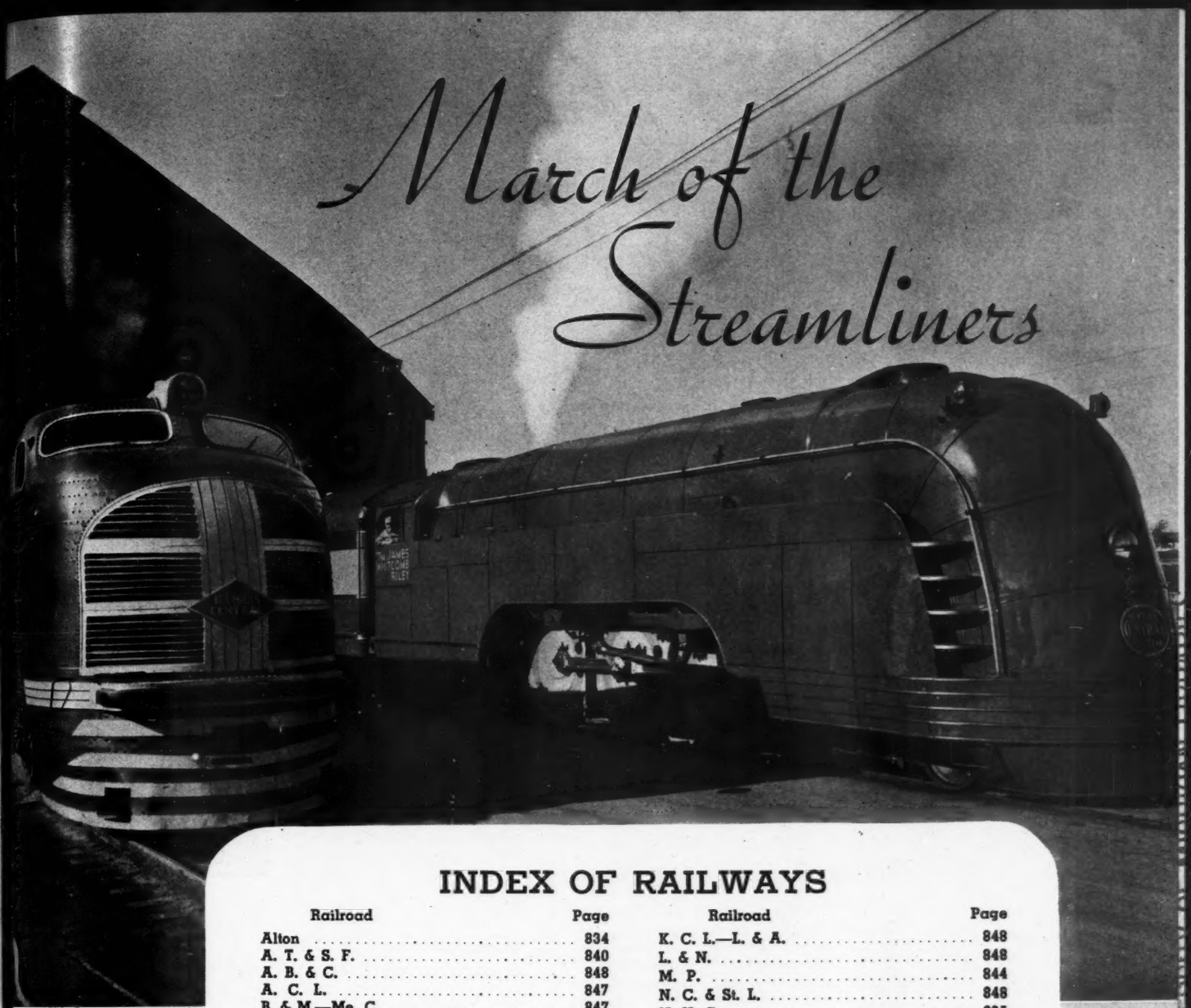
In the south, the Atlantic Coast Line has so revised its schedules for the coming winter season that its six seasonal Florida trains will be either all-coach or all-Pullman, with three of each type. The Seaboard has speeded up the Orange Blossom to an even 24 hr. schedule, New York-Miami, and will inaugurate two new trains, the Sun Queen and the Palmland. The latter train is so scheduled as to reach the army camps in the mid-South the day following departure from New York. The Florida Sunbeam between Miami and the mid-West will be all-Pullman for the first time this year.

These, and many other changes in standard train schedules, as well as the new streamliners inaugurated and in prospect, make the last year the most outstanding in the history of passenger progress.

* * * *

Photo by C. E. Carberry

Women Sell Bananas, Papayas, Pineapples and Sugar Cane to Passengers on a Mixed Train of the National Railways of Mexico at Mogone Station



INDEX OF RAILWAYS

Burlington Lines

Burlington Route

Denver Zephyr

(2 trains)

Consist: 12 cars (2 power units)—1 power-mail-baggage; 1 baggage-dormitory-tavern; 1 dinette-chair; 2 chair; 1 diner; 3 sleeper; 1 drawing room-bedroom-compartment; 1 roomette-bedroom-drawing room-compartment; 1 parlor-buffet-lounge.

Placed in service: November 8, 1936

Operated between: Chicago and Denver

Daily mileage per train: 1,037

Overall scheduled speed: 66.2 m.p.h. eastbound
64.6 m.p.h. westbound

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	756,645
Total passengers handled:	156,951
Total passenger miles:	93,519,703
Average passenger per train mile:	124
Average passengers per trip:	215
Revenue per train mile:	$2.77

Pioneer Zephyr

Consist: 4 cars—1 power-mail-baggage; 1 baggage; 1 dinette-chair; 1 chair-lounge.

Placed in Service: April 30, 1940

Operated between: St. Louis and Burlington
(1 round trip daily)

Daily mileage per train: 442

Overall scheduled speed: 40.4 m. p. h.

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	156,362
Total passengers handled:	60,696
Total passenger miles:	4,843,383
Average passengers per train mile:	31
Revenue per train mile:	$0.97

Twin Zephyr

(2 trains)

Consist: 7 cars (1 power unit)—1 power-baggage-tavern; 2 chair; 1 chair-dinette; 1 diner; 1 parlor-drawing room; 1 parlor-observation.

Placed in Service: December 18, 1936

Operated between: Chicago-St. Paul-Minneapolis
(1 round trip by each train daily)

Daily mileage per train: 874

Overall scheduled speed: 68.3 m.p.h. (3 schedules)
71.2 m.p.h. (1 schedule)

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	638,000
Total passengers handled:	245,620
Total passenger miles:	69,818,724
Average passenger per train mile:	109
Average passengers per trip:	168
Revenue per train mile:	$2.05

General Pershing Zephyr

Consist: 4 cars (1 power unit)—1 baggage; 1 chair; 1 section-drawing room-bedroom; 1 diner-parlor-lounge.

Placed in Service: April 30, 1939

Operated between: St. Louis-Kansas City (1 round trip daily)

Daily mileage per train: 558

Overall scheduled speed: 55.8

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	186,372
Total passengers handled:	31,551
Total passenger miles:	6,792,828
Average passenger per train mile:	36
Average passengers per trip:	43
Revenue per train mile:	$0.84

Texas Zephyr

(2 trains)

(C. & S.-Ft. W. & D. C.)

Consist: 8 cars (1 power unit)—1 mail-baggage; 1 express-dormitory-baggage-chair; 1 chair; 1 chair-dinette; 1 section-bedroom; 1 section-drawing room-compartment; 1 section-drawing room; 1 diner-lounge.

Placed in Service: August 23, 1940

Operated between: Denver-Fort Worth-Dallas (1 trip in each direction daily)

Daily mileage per train: 832

Overall scheduled speed: 48.3 m.p.h. southbound
45.1 m.p.h. northbound

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	609,742
Total passengers handled:	129,181
Total passenger miles:	33,167,787
Average passengers per train mile:	54
Revenue per train mile:	$1.41

NOTE: The C. B. & Q. owns a number of additional new, lightweight cars which are added to normal consist of many of these trains frequently. The dates placed in service indicate when present trains took over the runs.

Silver Streak Zephyr

Consist: 4 cars—1 power-baggage; 1 mail-baggage; 1 chair; 1 diner-parlor-lounge.

Placed in Service: April 15, 1940

Operated between: Lincoln-Omaha-Kansas City (1 round trip daily)

Daily mileage per train: 502

Overall scheduled speed: 50.9 m.p.h.

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	182,036
Total passengers handled:	56,221
Total passenger miles:	6,637,428
Average passenger per train mile:	36
Average passengers per trip:	77
Revenue per train mile:	$1.14

Mark Twain Zephyr

Consist: 3 cars—1 power-mail-baggage; 1 bar-dinette-chair; 1 chair-parlor-lounge.

Placed in Service: September 25, 1938

Operated between: St. Louis-Kansas City (1 round trip daily)

Daily mileage per train: 558

Overall scheduled speed: 55.8 m.p.h.

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	184,698
Total passengers handled:	29,251
Total passenger miles:	5,511,585
Average passenger per train mile:	30
Average passengers per trip:	40
Revenue per train mile:	$0.63

Ak-Sar-Ben Zephyr

Consist: 4 cars (1 power unit)—2 chair; 1 diner; 1 parlor-buffet-lounge.

Placed in Service: December 11, 1940

Operated between: Lincoln-Omaha-Chicago (1 trip eastbound daily)

(Statistics continued on next page)

Daily mileage per train: 551
Overall scheduled speed: 62 m.p.h.

Statistics

(December 11, 1940, to August 31, 1941)

Total train miles:	145,464
Total passengers handled:	32,967
Total passenger miles:	8,336,466
Average passengers per train mile:	57
Revenue per train mile:	$1.12

Burlington-Rock Island

Sam Houston Zephyr

Consist: 4 cars—1 power-baggage-chair; 1 dinette-chair; 1 chair; 1 chair-parlor-lounge.
Placed in Service: October 1, 1936
Operated between: Fort Worth-Dallas-Houston (1 round trip daily)
Daily mileage per train: 566
Overall scheduled speed: 62.5 m.p.h.

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	205,458
Total passengers handled:	55,991
Total passenger miles:	12,981,639
Average passengers per train mile:	63
Revenue per train mile:	$1.00

Texas Rocket

Consist: 4 cars—1 power-barrage-chair; 1 dinette-chair; 1 chair; 1 chair-parlor-lounge.
Placed in Service: November 3, 1938
Operated between: Fort Worth-Dallas-Houston (1 round trip daily)
Daily mileage per train: 566
Overall scheduled speed: 62.5 m.p.h.

Statistics

(September 1, 1940, to August 31, 1941)

Total train miles:	205,458
Total passengers handled:	60,560
Total passenger miles:	14,343,642
Average passengers per train mile:	70
Revenue per train mile:	$1.09

Rock Island

Chicago,

Zephyr-Rocket

(2 trains)

Consist: 7 cars (1 power unit)—1 mail-baggage; 1 express; 2 chair; 1 section-bedroom; 1 section-drawing room-bedroom; 1 diner-lounge.
Placed in Service: January 7, 1941
Operated between: St. Louis and St. Paul-Minneapolis (1 train in each direction daily)
(C. B. & Q.—St. Louis—Burlington)
(C. R. I. & P.—Burlington—Minneapolis)
Daily mileage per train: 585
Overall scheduled speed: 44.9 m.p.h.

Statistics

	1-7-41 to 8-31-41 C. B. & Q.	1-7-41 to 6-30-41 C. R. I. & P.
Total train miles:	104,533	128,100
Total passengers handled:	39,143	32,768
Total passenger miles:	5,622,217	1,293,100
Revenue per train mile:	$1.59	$1.48

Rock Island & Pacific

Arizona Limited

(2 trains)

(C. R. I. & P.-S. P.)

(Winter season only)

Consist: 7 cars (1 power unit)—1 baggage-dormitory; 1 diner; 2 bedroom-roomette; 2 drawing room-bedroom-compartment; 1 buffet-lounge-bedroom-observation.

Placed in Service: December 15, 1940
(Remained in service for winter season until April 15, 1941)

Operated between: Chicago and Phoenix (Every second day from each terminal)

Overall scheduled speed: 52.1 m.p.h.

Statistics*

(December 15, 1940, to April 15, 1941)

Total train miles:	139,252
Total passengers handled:	6,731
Total passenger miles:	10,537,167
Average passengers per trip:	54
Revenue per train mile:	$1.49

* Covering C. R. I. & P. operation Chicago-Tucumcari only.

Rocky Mountain Rocket

(2 trains—plus streamlined Kansas City-Colorado Springs connections)

Consist: 7 cars (1 power unit)—1 baggage; 1 mail-chair; 1 chair; 1 diner; 1 compartment-open section; 1 roomette-open section; 1 bedroom-observation.
(Chicago-Denver equipment. Additional chair and sleeping cars handled between Belleville and Limon.)

Placed in Service: Chicago-Denver: November 12, 1939
Kansas City-Colorado Springs: July 1, 1940.

Operated between: Chicago-Kansas City and Denver-Colorado Springs (1 train in each direction daily)

Daily mileage per train: 1,084 (Chicago-Denver)

Overall scheduled speed: 57.5 m.p.h.

Statistics

(Year—July 1, 1940, to June 30, 1941)

Total train miles:	991,954
Total passengers handled:	136,257
Total passenger miles:	51,697,717
Average passengers per trip:	182
Revenue per train mile:	$1.26

Peoria Rocket

Consist: 4 cars (1 power unit)—1 baggage-dinette; 2 chair; 1 observation-lounge.

Placed in Service: September 19, 1937

Operated between: Chicago and Peoria
(2 round trips daily)

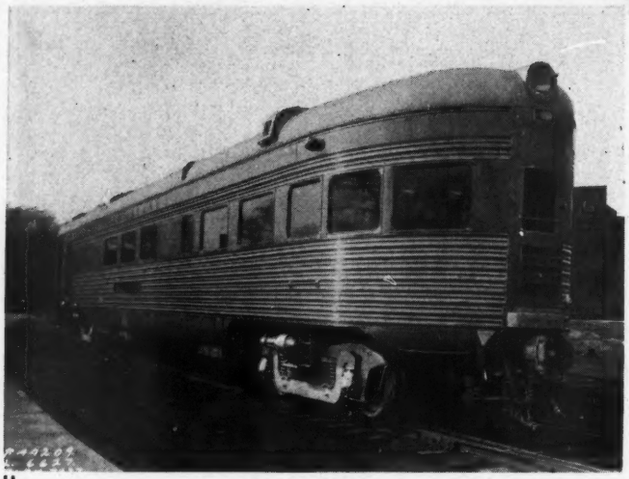
Daily mileage per train: 644

Overall scheduled speed: 62.3 m.p.h.

Statistics

(Year—July 1, 1940, to June 30, 1941)

(*Statistics continued on next page*)



Total train miles:	234,966
Total passengers handled:	144,050
Total passenger miles:	21,912,600
Average passengers per trip:	99
Revenue per train mile:	$1.71

Kansas City-Minneapolis Rocket

(2 trains)

Consist: 3 cars (1 power unit)—1 baggage-dinette; 1 chair; 1 chair-observation-lounge.

Placed in Service: September 29, 1937

Operated between: Kansas City and Minneapolis (1 train in each direction daily)

Daily mileage per train: 489

Overall scheduled speed: 56.4 m.p.h.

Statistics

(Year—July 1, 1940, to June 30, 1941)

Total train miles:	356,746
Total passengers handled:	91,542
Total passenger miles:	27,724,700
Average passengers per trip:	125
Revenue per train mile:	$1.41

Kansas City-Dallas Rocket

(2 trains)

Consist: 4 cars (1 power unit)—1 baggage-mail; 1 baggage-dinette; 1 chair; 1 chair-observation-lounge.

Placed in Service: November 15, 1938

Operated between: Kansas City-Dallas (via Oklahoma City) (1 trip in each direction daily)

Daily mileage per train: 677

Overall scheduled speed: 57 m.p.h.

Statistics

(Year—July 1, 1940, to June 30, 1941)

Total train miles:	494,225
Total passengers handled:	111,566
Total passenger miles:	27,104,562
Average passengers per trip:	153
Revenue per train mile:	$1.17

Des Moines Rocket

Consist: 4 cars (1 power unit)—1 baggage-dinette; 2 chair; 1 observation-lounge.

Placed in Service: September 26, 1937

Operated between: Chicago and Des Moines (1 round trip daily)

Daily mileage per train: 716

Overall scheduled speed: 59.7

Statistics

(Year—July 1, 1940, to June 30, 1041)

Total train miles:	261,340
Total passengers handled:	125,375
Total passenger miles:	26,342,400
Average passengers per trip:	172
Revenue per train mile:	$1.82

Choctaw Rocket

(2 trains)

Consist: 4 cars (1 power unit)—1 mail-express-baggage; 1 chair; 1 section-bedroom; 1 parlor-observation-diner.

Placed in Service: November 17, 1940

Operated between: Memphis and Amarillo (1 train in each direction daily)

Daily mileage per train: 761

Overall scheduled speed: 45.9 m.p.h.

Statistics

(November 17, 1940, to June 30, 1941)

Total train miles:	344,064
Total passengers handled:	39,481
Total passenger miles:	9,957,128
Average passengers per trip:	54
Revenue per train mile:	$0.76

Alton

THE ALTON RAILROAD COMPANY — CHICAGO — ST. LOUIS — The ONLY WAY — KANSAS CITY

Abraham Lincoln

Ann Rutledge

(2 trains)

Consist: 8 cars—1 baggage-smoker; 2 chair; 1 diner-tavern-counter; 1 lounge; 2 parlor; 1 parlor-observation. (The Ann Rutledge northbound carried 1 diner in addition to the above.)

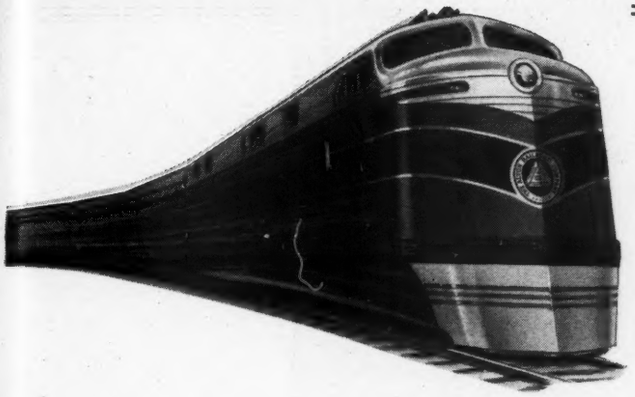
Placed in Service: Abraham Lincoln: July 1, 1935
Ann Rutledge: July 26, 1937

Operated between: Chicago and St. Louis (1 round trip daily, each train)

Daily mileage per train: 568

Overall scheduled speed: 57.8 m.p.h.

(Statistics continued on next page)



Statistics

(Year—June 1, 1940, to May 31, 1941)

Total train miles:	414,698
Total passenger miles:	58,685,679
Total passengers handled:	278,069
Average passengers per trip:	188
Revenue per train mile:	$2.84

New York Central

James Whitcomb Riley

(C. C. C. & St. L.)

Consist:	7 cars—1 baggage-mail; 4 chair; 1 diner; 1 observation.
Placed in Service:	April 28, 1941
Operated between:	Chicago and Cincinnati (1 round trip daily except Sunday)
Daily mileage per train:	605
Overall scheduled speed:	57.61 m.p.h.

Statistics

(April 28, 1941, to August 31, 1941)

Total train miles:	55,822
Total passengers handled:	31,550
Average passengers per trip:	139
Revenue per train mile:	$2.03

Twentieth Century Limited

(4 trains)

Consist:	12 cars—1 mail-baggage; 1 club-lounge; 1 roomette; 1 roomette-bedroom; 3 compartment-bedroom-drawing room; 2 bedroom; 2 diners; 1 observation.
Placed in Service:	June 15, 1938 (Standard equipment replaced)
Operated between:	New York and Chicago
Daily mileage per train:	961
Overall scheduled speed:	59.89 m.p.h.

Statistics

(Year—July 1, 1940, to June 30, 1941)

Total train miles:	703,452
Total passengers handled:	46,041
Average passengers per trip:	63.8
Revenue per train mile:	$2.50

Union Pacific

City of Salina

Consist:	3 cars—1 power-baggage; 1 chair; 1 chair-buffet.
Placed in Service:	January 31, 1935
Operated between:	Salina and Kansas City (1 round trip daily)
Daily mileage per train:	374
Overall scheduled speed:	53.6 m.p.h.

(See C. & N. W. for joint trains: City of Denver, City of Portland, City of San Francisco, City of Los Angeles.)

Chicago & North Western

400

(2 trains)

Consist: 10 cars (2 power units)—1 baggage-bar-lunch; 4 chair; 1 diner; 3 parlor; 1 observation-lounge.

Placed in Service: September 24, 1939 (Supplanting standard train operated since January 2, 1935)

Operated between: Chicago-St. Paul-Minneapolis (1 train in each direction daily)

Daily mileage per train: 419

Overall scheduled speed: 65.4 m.p.h. (Chicago-St. Paul)

Statistics

(Year—August 1, 1940, to July 31, 1941)

Total train miles:	317,771
Total passengers handled:	240,602
Average passengers per trip:	330
Revenue per train mile:	$3.72

(See note regarding all "City" trains)

C. & N. W.-U.P.

City of Denver

(2 trains)

(C. & N. W.-U. P.)

Consist: 11 cars (3 power units)—1 baggage; 1 baggage-mail; 1 dormitory-taproom; 2 chair; 1 diner; 2 open section; 1 section-bedroom-compartment; 1 roomette-compartment - bedroom - drawing room; 1 bedroom-compartment-observation.

Placed in Service: June 18, 1936

Operated between: Chicago and Denver (1 trip in each direction daily) (C. & N. W.-Chicago-Omaha; U. P.-Omaha-Denver)

Daily mileage per train: 1,048

Overall scheduled speed: 65.5 m.p.h.

Statistics*

(Year—August 1, 1940, to July 31, 1941)

Total train miles:	357,566
Total passengers handled:	110,065
Average passengers per trip:	151
Revenue per train mile:	$2.52

* Statistics cover C. & N. W. operation only.

City of Los Angeles

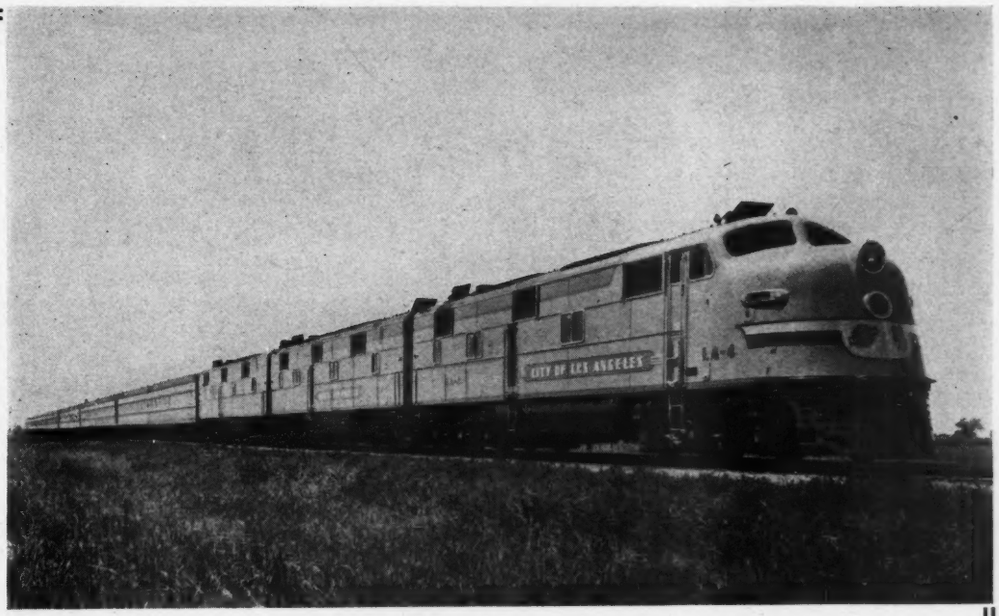
(1 train)

Consist: 14 cars (3 power units)—1 baggage - auxiliary - dormitory; 2 chair; 1 cafe-lounge; 1 diner; 1 dormitory-club; 1 bedroom; 1 enclosed section; 1 drawing room-compartment; 1 roomette-section; 3 drawing room-compartment-bedroom; 1 observation-lounge.

Placed in Service: December 27, 1937

Operated between: Chicago and Los Angeles (5 round trips per month)

(Statistics continued on next page)



Mileage: 22,995 miles per month

Overall scheduled speed: 57.8 m.p.h.

Statistics*

Total train miles:	59,048
Total passengers handled:	17,005
Average passengers per trip:	142
Revenue per train mile:	$3.30

* Statistics cover C. & N. W. operation only.

City of Los Angeles

(1 train)

Consist: 14 cars (3 power units)—1 baggage-dormitory; 2 chair; 1 cafe-lounge; 1 diner; 1 club; 1 bedroom; 1 open section; 1 roomette; 4 drawing room-compartment-bedroom; 1 bedroom-observation

Placed in Service: August 3, 1941

Operated between: Chicago and Los Angeles (5 round trips per month)

Mileage: 22,995 miles per month

Overall scheduled speed: 57.8 m.p.h.

NOTE: The 11-car (2 power unit) train formerly operated as a second City of Los Angeles, was removed from service on August 3, 1941, when the new City of Los Angeles was installed. The cars making up the former small City of Los Angeles are now used as extra equipment in other "City" trains and to supplant cars that are shopped.

City of Portland

(1 train)

Consist: 10 cars (1 power unit)—1 auxiliary-baggage-dormitory; 2 chair; 1 diner-kitchen; 1 diner; 2 open section; 1 enclosed section; 1 bedroom-compartment; 1 observation-lounge.

Placed in Service: June 6, 1935

Operated between: Chicago and Portland (5 round trips monthly)

Mileage: 22,720 miles per month

Overall scheduled speed: 57.1 m.p.h.

Statistics*

(Year—August 1, 1940, to July 31, 1941)

Total train miles:	58,560
Total passengers handled:	12,086
Average passengers per trip:	101
Revenue per train mile:	$1.76

* Statistics cover C. & N. W. operation only.

City of San Francisco

(1 train)

C. & N. W.-U. P.-S. P.

Consist: 14 cars (3 power units)—1 baggage-auxiliary-dormitory; 1 chair; 1 diner-kitchen; 1 diner; 1 dormitory club; 1 drawing room-compartment; 1 open section; 1 bedroom; 1 bedroom-roomette; 4 drawing room-compartment-bedroom; 1 observation-lounge.

Placed in Service: June 14, 1936

Operated between: Chicago and Oakland (5 round trips per month)

Mileage: 22,600 miles per month

Overall scheduled speed: 56.8 m.p.h.

Statistics*

(Year—August 1, 1940, to July 31, 1941)

Total train miles:	58,560
Total passengers handled:	16,881
Average passengers per trip:	141
Revenue per train mile:	$3.80

* Statistics cover C. & N. W. operation only.

City of San Francisco

(1 train)

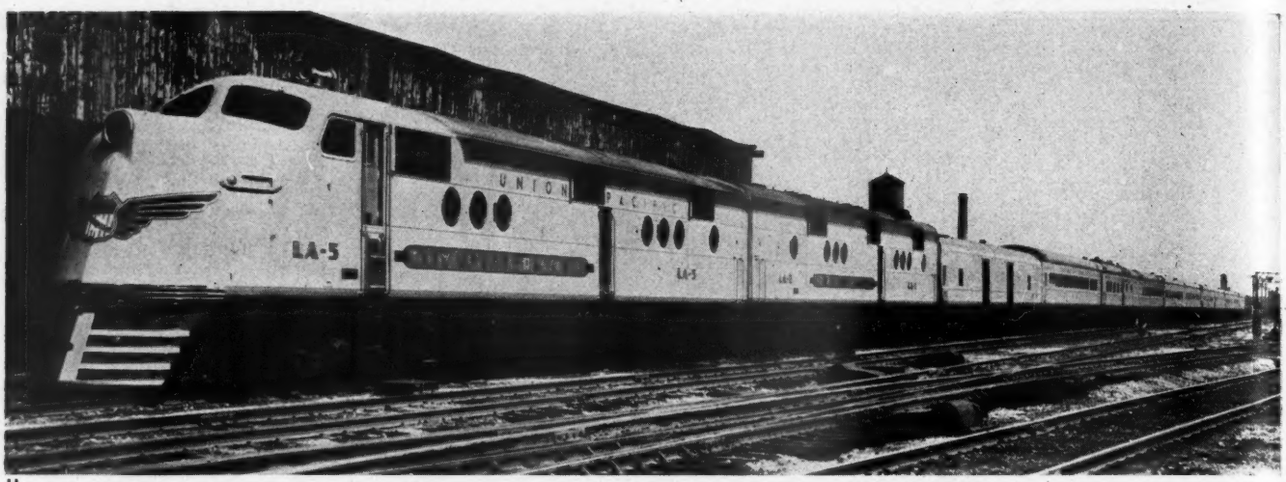
Consist: 14 cars (3 power units)—1 baggage-dormitory; 1 chair; 1 diner-kitchen; 1 diner; 1 club; 1 drawing room-compartment; 1 open section; 1 bedroom; 1 bedroom-roomette; 4 drawing room-compartment-bedroom; 1 drawing room-observation.

Placed in Service: July 26, 1941

Operated between: Chicago and Oakland (5 round trips per month)

Mileage: 22,600 miles per month

Overall scheduled speed: 56.8 m.p.h.



Southern Pacific

Sunbeam

(2 trains)

Consist: 6 cars—1 baggage; 1 baggage-mail; 2 chair; 1 parlor; 1 diner-lounge-observation.

Placed in Service: September 19, 1937

Operated between: Houston and Dallas (1 train daily in each direction) (The majority of the equipment on these trains is also operated in each direction as "The Hustler.")

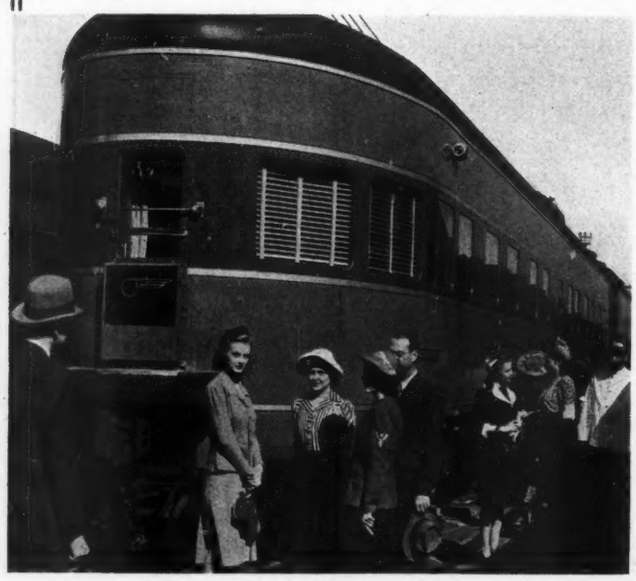
Daily mileage per train: 264

Overall scheduled speed: 60 m.p.h.

Daylight

(4 trains)

Consist: 18 cars—1 chair-baggage; 11 chair; 1 tavern; 1 three-car unit-coffee shop-kitchen-diner; 1 parlor; 1 parlor-observation.



SOUTHERN PACIFIC LINES

Placed in Service: March 21, 1937 (2 original trains); January 10, 1940 (2 Morning Daylights).

Operated between: San Francisco and Los Angeles

Daily mileage per train: 470

Overall scheduled speed: 49.5 m.p.h. Morning Daylights
48.7 m.p.h. Noon Daylights

San Joaquin Daylight

(2 trains)

Consist: 14 cars—9 chair; 1 diner; 1 tavern-coffee shop; 1 parlor-observation; 1 baggage; 1 baggage-mail.

Placed in Service: July 4, 1941

Operated between: Oakland-Los Angeles

Daily mileage per train: 480

Overall scheduled speed: 40.5 m.p.h.

Lark

(2 trains)

Consist: 18 cars—12 sleepers; 1 sleeper-cafe-lounge; three-car unit lounge-diner-kitchen; 2 baggage.

Placed in Service: May 1, 1941 (replacing standard train)

Operated between: San Francisco and Los Angeles

Daily mileage per train: 470

Overall scheduled speed: 37.5 m.p.h.

NOTE: The Oakland Lark is operated daily, northbound and southbound, between San Jose and Oakland, as a connection with the Lark and carries through streamlined sleepers and cafe-lounge, Los Angeles-Oakland, as well as coach service between San Jose and Oakland only.

(See C. & N. W. for City of San Francisco information and C. R. I. & P. for Arizona Limited operation.)

Southern

Southerner

(Penna.-Southern)

(3 trains)

Consist: 8 cars—1 chair-dormitory-baggage; 4 through chair cars; 1 New York-Atlanta chair car; 1 diner; 1 observation-tavern car.

Placed in Service: March 31, 1941 from New York
April 1, 1941 from New Orleans

Operated between: New York and New Orleans—via Penna., New York-Washington; and Southern, Washington-New Orleans

Mileage per trip: 1,386

Overall scheduled speed: 47.4 m.p.h.

Statistics

(April 1, 1941 to August 31, 1941)

Average passenger per train mile: 63.761

Total passengers handled: 416.7

Tennessean

(Sou.-N. & W.-Sou.)

(3 trains)

Consist: 9 cars—1 chair-dormitory-baggage; 3 chair cars; 1 diner; 1 observation-tavern car; 1 Washington-Memphis sleeper; 1 Chattanooga-Memphis sleeper; 1 Bristol-Nashville sleeper.

Placed in Service: May 17, 1941, from Memphis
May 18, 1941, from Washington

Operated between: Washington and Memphis, Tenn.—via Southern: Washington-Lynchburg; Norfolk & Western: Lynchburg-Bristol; Southern: Bristol-Memphis

Mileage per trip: 929

Overall scheduled speed: Southbound: 40.2 m.p.h.
Northbound: 41.1 m.p.h.

Statistics

(May 17, 1941 to August 31, 1941)

Total passengers handled: 37,726

Average passengers per trip: 352.6

Vulcan*

(2 trains)

Placed in Service: August 24, 1939

Operated between: Chattanooga and Meridian

Daily mileage per train: 591

Cracker*

(2 trains)

Placed in Service: October 11, 1939

Operated between: Atlanta and Brunswick

Daily mileage per train: 550

Goldenrod*

Placed in Service: September 24, 1939

Operated between: Birmingham and Mobile

Daily mileage per train: 528

Joe Wheeler*

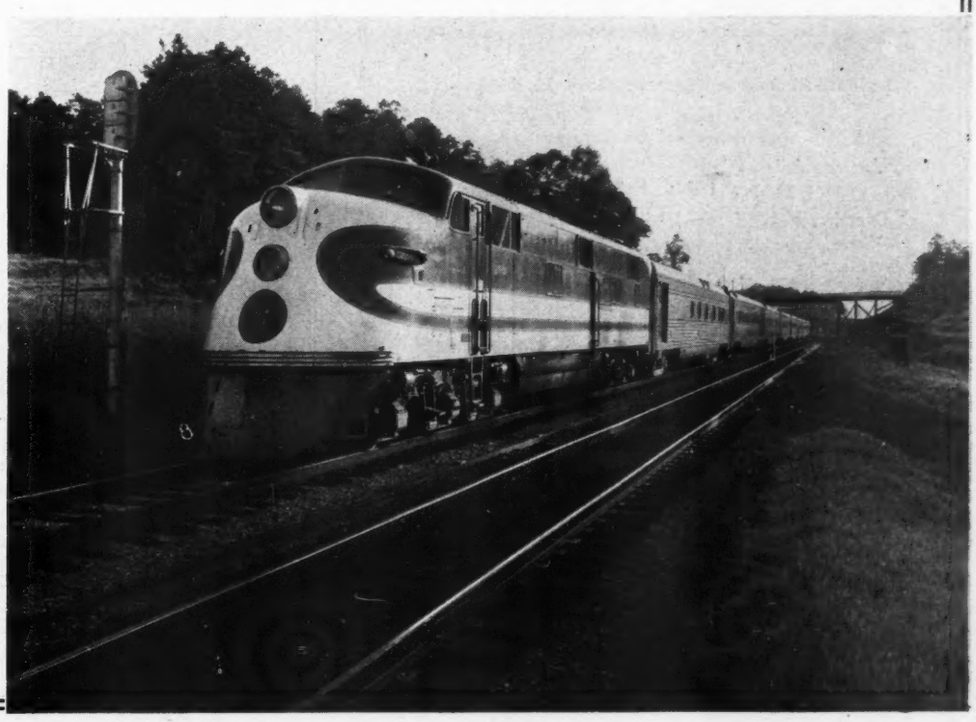
Placed in Service: September 29, 1939

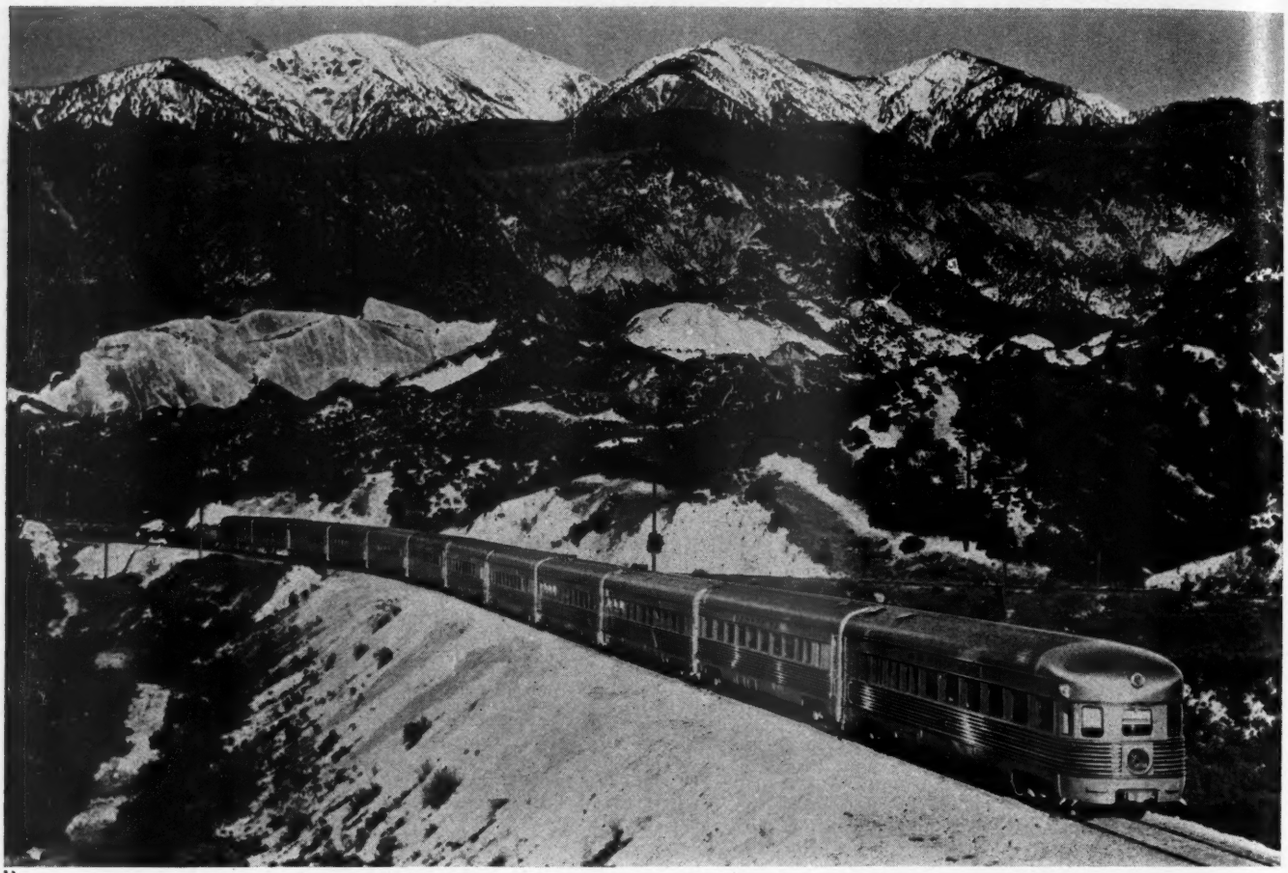
Operated between: Oakdale and Tuscumbia

Daily mileage per train: 497

* NOTE: These six lightweight trains, consisting of 2 cars each (1 power-mail-baggage car; 1 chair car) were placed in service in substitution for standard trains to reduce operating costs and are successfully accomplishing this purpose.

THE SOUTHERN SR SERVES THE SOUTH





Atchison, Topeka & Santa Fe

Chief

(6 trains)

Consist: 11 cars (normal)—1 mail; 1 baggage-mail; 1 club-baggage; 1 club-lounge; 1 diner; 5 sleepers; 1 sleeper-observation. (Additional sleepers frequently added.)

Placed in Service: February 22, 1938 (Supplanting standard trains)

Operated between: Chicago and Los Angeles

Average daily mileage per train: 743

Overall scheduled speed: 47.6 m.p.h.

Super Chief

(2 trains)

Consist: 9 cars (2 power units)—1 club-baggage; 1 club-lounge; 1 diner; 1 roomette; 3 drawing room-compartment-bedroom; 1 compartment-bedroom-section; 1 compartment-drawing room-bedroom-observation.

Placed in Service: 1st train—June 15, 1937 (Supplanting standard train) 2nd train—February 22, 1938.

Operated between: Chicago and Los Angeles (1 round-trip per train weekly)

Mileage per train: 4,456 miles per week

Overall scheduled speed: 56.6 m.p.h.

Chicagoan

Kansas Citian

(2 trains)

Consist: 6 cars (1 power unit)—1 baggage-mail; 2 chair; 1 club-chair; 1 diner; 1 parlor-observation. (An extra chair car is added to each train every week-end.)

Placed in Service: April 17, 1938 (Service extended Wichita-Oklahoma City on December 10, 1939)

Operated between: Chicago and Oklahoma City

Daily mileage per train: 851

Overall scheduled speed: 55 m.p.h.

Tulsan

Consist: 5 cars (1 power unit)—1 baggage-mail; 1 diner; 2 chair; 1 parlor-observation.

Placed in Service: December 10, 1939

Operated between: Kansas City and Tulsa (1 round trip daily)

Daily mileage per train: 512

Overall scheduled speed: 54 m.p.h.

Golden Gate

(2 trains)

Consist: 6 cars (1 power unit)—1 baggage-chair; 2 chair; 1 chair-club; 1 lunch counter-diner; 1 chair-observation.

Placed in Service: July 1, 1938

Operated between: Oakland and Bakersfield (1 round trip daily for each train in connection with co-ordinated bus service, San Francisco-Los Angeles)

Daily mileage per train: 626

Overall scheduled speed: 56.1 m.p.h.

San Diegan

(2 trains)

Consist: 9 cars (1 power unit)—1 baggage-express; 1 express-mail; 4 chair; 1 lunch counter-diner; 1 parlor-club; 1 chair-observation.

Placed in Service: 1st train: March 27, 1938
2nd train: June 8, 1941

Operated between: Los Angeles and San Diego (2 round trips daily for each train)

Daily mileage per train: 512

Overall scheduled speed: 52.8 m.p.h.

El Capitan

(2 trains)

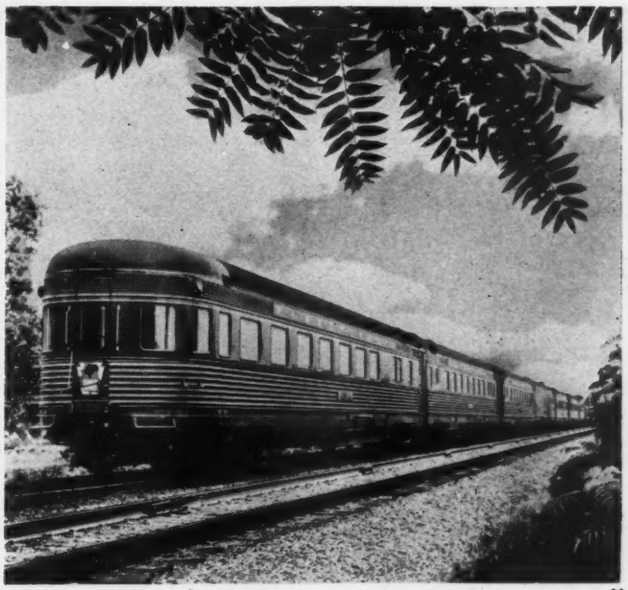
Consist: 7 cars (1 power unit)—1 baggage-dormitory; 3 chair; 1 chair-observation; 1 lounge-club; 1 lunch counter-diner.

Placed in Service: February 22, 1938

Operated between: Chicago and Los Angeles (1 round trip per train per week)

Mileage per train: 4,456 miles per week

Overall scheduled speed: 56.6 m.p.h.



Pennsylvania

Broadway Limited

(2 trains)

Consist: 8 cars—1 mail; 1 baggage; 1 roomette; 1 bar-lounge-bedroom; 1 diner; 1 compartment-bedroom-drawing room; 1 bedroom; 1 master room-bedroom-buffet-observation.

Placed in Service: June 15, 1938 (Supplanting standard trains)

Operated between: Chicago and New York (1 trip in each direction daily)

Daily mileage per train: 908

Overall scheduled speed: 56.7 m.p.h.

(Following the introduction of streamlined equipment, patronage of the Broadway Limited increased between 35 and 40 per cent.)

South Wind

(Penna.—L. & N.—A. C. L.—F. E. C.)

Consist: 7 cars—1 baggage-dormitory-chair; 4 chair; 1 diner; 1 observation-lounge-buffet.

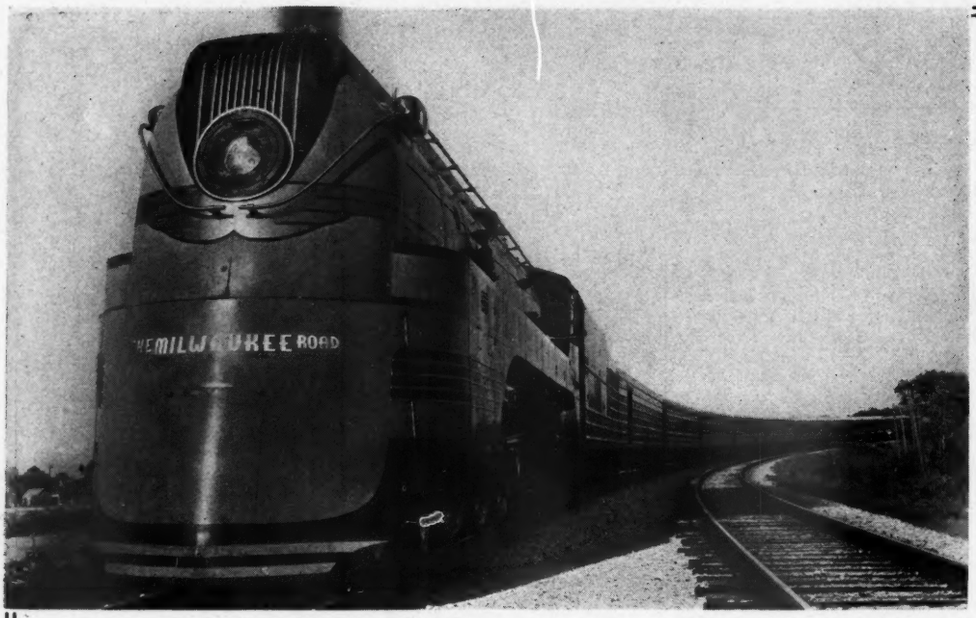
Placed in Service: December 19, 1940

Operated between: Chicago and Miami (From each terminal every third day)

Mileage per trip: 1,559

Overall scheduled speed: 52.8 m.p.h.

NOTE: The Pennsylvania also participates in the operation (between New York and Washington) of the Champions (A. C. L.-F. E. C.); Silver Meteors (Seaboard); and Southerners (Southern).



CHICAGO MILWAUKEE ST. PAUL AND PACIFIC

Chicago, Milwaukee, St. Paul & Pacific

Hiawatha

(4 trains)

Consist: Afternoon Hiawathas: 8 cars—1 tavern-express; 4 chair; 1 diner; 1 parlor-drawing room; 1 parlor-observation.
Morning Hiawathas: 11 cars, westbound; 9 cars, eastbound—1 express; 1 mail; 1 express-tavern; 3 chair; 1 diner; 1 parlor-drawing room; 1 parlor-observation. (Extra cars to a maximum of 15 are frequently added to this normal consist.)

Placed in Service: Afternoon Hiawathas: May 29, 1935
Morning Hiawathas: January 21, 1939

Operated between: Chicago and St. Paul-Minneapolis

Daily mileage per train: 422

Overall scheduled speed: Afternoon Hiawathas: 65.6 m.p.h.
Morning Hiawathas:
Eastbound: 65.6 m.p.h.
Westbound: 55.9 m.p.h.

Statistics

(Year ending June 30, 1941, excluding all extra sections)

	Afternoon Hiawatha	Morning Hiawatha
Total train miles:	308,060	308,060
Total passengers:	274,276	172,925
Total passenger miles:	58,775,867	35,102,484
Average passengers per trip:	376	237
Revenue per train mile:	$3.87	$3.41

Mid-West Hiawatha

(2 trains)

Consist: 6 cars—1 mail-express; 2 chair; 2 parlor; 1 taproom-diner.

Placed in Service: December 11, 1940

Operated between: Chicago and Omaha — Sioux Falls (1 trip in each direction daily) (Streamlined connection between Manilla, Iowa, and Sioux Falls)

Daily mileage per train: 488 (Chicago-Omaha)

Overall scheduled speed: 61.2 m.p.h.

New York-Susquehanna & Western

S

(2 trains)

Consist: 1 car—power-chair.

Placed in Service: July 15, 1940

Operated between: Susquehanna Transfer and Paterson-Butler

Daily mileage per train: 430

Illinois Central

Land O'Corn

Consist: 2 cars—1 power-chair; 1 chair-diner.

Placed in Service: October 28, 1941

Operated between: Chicago and Waterloo (1 round trip daily)

Daily mileage per train: 550

Overall scheduled speed: 48.2 m.p.h.

Miss Lou

Consist: 1 car—power-chair-buffet.

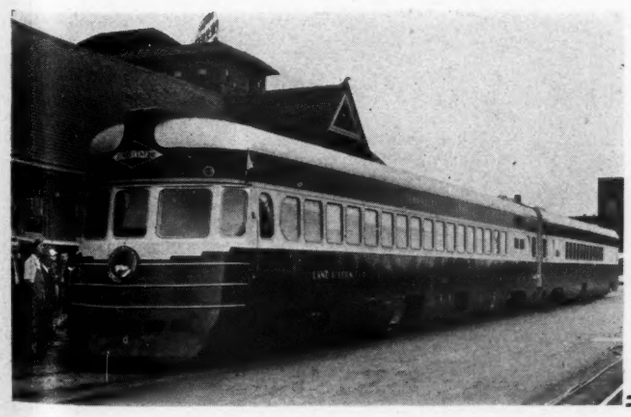
Placed in Service: November 17, 1940

Operated between: Jackson, Miss., and New Orleans (1 round trip daily)

Daily mileage per train: 366.2

Overall scheduled speed: 48.8 m.p.h.

NOTE: The "Illini," a 1-car streamliner, formerly operated between Chicago and Champaign, is temporarily out of service.



Green Diamond

Consist: 4 cars (1 power unit)—1 diner-lounge; 1 diner-chair; 1 chair; 1 mail-baggage-express.

Placed in Service: May 17, 1936

Operated between: Chicago and St. Louis (1 round trip daily)

Daily mileage per train: 588.4

Overall scheduled speed: 59.8 m.p.h.

Statistics

(September 1, 1940, to August 31, 1941)

Total passengers handled:	63,060
Total passenger miles:	12,833,264
Average passengers per trip:	92
Revenue per train mile:	$1.22

City of Miami

(I. C.-C. of Ga.-A. C. L.- F. E. C.)

Consist: 7 cars (1 power unit)—1 baggage-dormitory-chair; 4 chair; 1 diner; 1 lounge-bar-observation.

Placed in Service: December 18, 1940

Operated between: Chicago and Miami (From each terminal every third day)

Average daily mileage: 1,205

Overall scheduled speed: 50.2 m.p.h.

Statistics

(December 18, 1940, to August 31, 1941—I. C. only)

Total passengers handled:	28,318
Total passenger miles:	16,527,397
Average passengers per trip:	170
Revenue per train mile:	$2.22

New York, New Haven & Hartford

Consist: 3 cars—2 power-chair; 1 chair.
Placed in Service: June 5, 1935
Operated between: Boston and Providence (5 round trips week days—4 Sundays)
Daily mileage per train: 440—week days 352—Sundays
Overall scheduled speed: 60 m.p.h. (2 intermediate stops) 48 m.p.h. (5 intermediate stops)

Statistics

(Latest 12-month period)

Total passengers handled:	308,997
Average passengers per trip:	87
Revenue per train mile:	$0.99

The New York New Haven and Hartford Railroad Co.

MISSOURI PACIFIC LINES

Missouri Pacific

Missouri River Eagle

(2 trains)

Consist: 6 cars (1 power unit)—1 mail-storage; 1 baggage; 2 chair; 1 diner-bar-lounge; 1 parlor-observation.
Placed in Service: March 10, 1940
Operated between: St. Louis-Kansas City-Omaha
Daily mileage per train: 478
Overall scheduled speed: 52.6 m.p.h.

Statistics

(September, 1940, to September, 1941)

Total passenger miles:	24,470,741
Total passengers handled:	162,156
Average passengers per trip:	222
Revenue per train mile:	$1.92

Delta Eagle

Consist: 3 cars — 1 power-baggage; 1 mail-chair; 1 chair-buffet.
Placed in Service: May 11, 1941
Operated between: Memphis and Tallulah (1 round trip daily)
Daily mileage per train: 518
Overall scheduled speed: 40.3 m.p.h.

Seaboard

Silver Meteor

(3 trains)

(Penna.-R. F. & P.-Seaboard)

Consist: 17 cars (3 power units)—1 baggage-chair; 7 chair; 2 diner; 1 chair - lounge; 1 chair - tavern-lounge; 1 chair - observation-lounge; 1 section-drawing room; 2 section - compartment - drawing room; 1 compartment - drawing room. (Beginning November 1, 1941)

Placed in Service: February 2, 1939

Operated between: New York and Miami (Streamlined connection between Wildwood and St. Petersburg)

Daily mileage per train: 1,013 (24-hr. average)

Overall scheduled speed: 55.3 m.p.h. (New York-Miami) 52.2 m.p.h. (New York, St. Petersburg)

Statistics

(September 1, 1940, to August 31, 1941—Seaboard only)

Total passengers handled:	226,172
Total train miles:	859,170
Average passengers per trip:	292.5
Revenue per train mile:	$3.537

Reading

Crusader

Consist: 5 cars—2 parlor-observation; 2 chair cars; 1 diner-tavern.

Placed in Service: December 13, 1937

Operated between: Philadelphia - Jersey City - New York (2 round trips daily)

Daily mileage per train: 360

Overall scheduled speed: 56.7 m.p.h.

C&EI

Chicago & Eastern Illinois

(L. & N., N. C. & St. L., A. B. & C., A. C. L., F. E. C.)

Dixie Flagler

Consist:	7 cars — 1 chair-baggage-dormitory; 4 chair; 1 diner; 1 tavern-observation-lounge.
Placed in Service:	December 17, 1940
Operated between:	Chicago and Miami, Fla. (From each point every third day)
Mileage per trip:	1,455
Overall scheduled speed:	55 m.p.h.

Statistics

(86 trips southbound—C. & E. I. only)

Total passenger miles:	24,862
Total passengers handled:	13,028
Average passengers per trip:	152
Revenue per train mile:	$2.46

Chicago, No. Shore & Milwaukee

Electroliners

(2 trains)

Consist:	4 cars—3 chair; 1 tavern-lounge.
Placed in Service:	February 9, 1941
Operated between:	Chicago and Milwaukee (5 trips each way daily per train)
Daily mileage per train:	444
Overall scheduled speed:	60 m.p.h. (City limit to city limit)

Statistics

(February 9, 1941, to October 18, 1941)

Total passengers handled:	302,225
Average passengers per trip:	119.9
Revenue per train mile:	$1.24

NORTH SHORE LINE

Atlantic Coast Line Florida East Coast

Champion

(Penna.-R. F. P.-A. C. L.- F. E. C.)

(2 trains—A. C. L.)

(1 train—F. E. C.)

Consist: 14 cars (2 power units)—2 dormitory - baggage - chair; 8 chair; 2 diner; 1 tavern-lounge; 1 tavern-lounge-observation.

Placed in Service: December 1, 1939
(Original 7-car train)

Operated between: New York and Miami

Statistics

(Florida East Coast only)

(7-car trains—December, 1939-December, 1940)

Total passengers handled:	151,500
Total passenger miles:	44,945,000
Average passengers per trip:	192
Revenue per train mile:	$2.60

(14-car trains—January, 1941-May, 1941)

Total passengers handled:	109,322
Total passenger miles:	34,606,000
Average passengers per trip:	362
Revenue per train mile:	$5.34

NOTE: For statistics on "Dixie Flagler," "City of Miami" and "South Wind" see C. & E. I.; I. C.; and Pennsylvania.

Boston & Maine — Maine Central

Flying Yankee-Mountaineer

(1 train)

Consist: 3 cars—1 power-baggage-buffet; 1 chair; 1 parlor-observation.

Placed in Service: April 1, 1935

Operated between: Boston-Portland-Bangor
(As "Flying Yankee," six days per week in winter, four days per week in summer.)
Boston and Littleton and Bethlehem, N. H.
(As "Mountaineer," three days per week in summer season.)

Daily mileage per train: Flying Yankee—500
Mountaineer—386

Statistics

Total passengers handled:
Flying Yankee—
107,909 (B. & M.)
52,862 (Me. C.)
(August 31, 1940, to August 31, 1941)
Mountaineer—
7,160 (B. & M.)
3,534 (Me. C.)
(1941 summer season: tri-weekly only)

Average passengers per trip:
99.4 (B. & M.)
49.0 (Me. C.)

K. C. Southern-La.-Ark.

Southern Belle

(3 trains)

Consist: 5 cars (1 power unit)—1 mail-baggage; 1 chair; 2 sleeper; 1 observation-lounge-diner.

Placed in Service: September 1, 1940

Operated between: Kansas City and New Orleans

Daily mileage per train: 873

Overall scheduled speed: 40.5 m.p.h.

Norfolk & Western

(See Southern for information on "Tennessean")

N. C. & St. L.

(See C. & E. I. for information on "Dixie Flagler")

A. B. & C.

(See C. & E. I. for information on "Dixie Flagler")

L. & N.

(See C. & E. I. and Penna. for information on "Dixie Flagler" and "South Wind")

C. of Ga.

(See I. C. for information on "City of Miami")

R. F. & P.

(See Seaboard and A. C. L.-F. E. C. for information on "Silver Meteor" and "Champion")

NOTE: The average passengers per trip in each instance, unless otherwise specified, cover the total number of passengers using the trains for short hauls as well as through service.

Gulf, Mobile & Ohio

Rebel

(2 trains)

Consist: 4 cars—1 power-mail-baggage; 1 buffet-chair; 1 chair; 1 sleeper-observation.

Placed in Service: July 1, 1935

Operated between: New Orleans and Jackson, Tenn. (1 train in each direction daily)

Daily mileage per train: 497

NOTE—A streamlined Rebel connection is operated in both directions daily between Union, Miss., and Mobile.

What the Executives Think

Passenger service is the subject of more attention than ever before among high-ranking officers

Union Stations Such as This One Recently Built Indicate the Confidence of the Executives in the Future of Passenger Traffic

BEGINNING in 1934, and extending to the time when exorbitant demands of railway labor and other urgent matters interfered, the railway executives of the country really studied passenger traffic as never before within the present generation at least. A canvass last spring of the executives of more than 30 of the principal passenger-carrying railways from coast to coast showed a distinct feeling of optimism. There was relatively little of the deep gloom that was prevalent in progressively greater degrees during the 10 years from the time when railway passenger revenues began their nose-dive in 1923. On the contrary, after witnessing the revolutionary developments in passenger service that began in 1934, an ever-increasing group of executives became converts to the theory that passenger trains can be made to produce the satisfying jingle of cash in the till if the public demand for modern transportation is met. They were also able to produce facts, figures and revenues to back this theory and to pierce the pall of defeatism which, not unnaturally, ten years of continuously decreasing business—much of it during the height of prosperity in the 20's—had produced.

The Public Demand

There is no question but that the public wants streamlined trains and is extremely articulate in its demands for modern passenger transportation. There are some cities in the country where certain railway executives of roads that have not yet installed the newer trains find it difficult to transact business, so insistent are the demands for streamlined service. While the present emergency will probably quiet these voices to a certain extent for the time being, the public has become accustomed to modern passenger transportation and, when normality returns, will insist upon having it—or will use competing forms of transportation.

Before the present shortages of materials complicated the situation, those executives who had been pioneers in streamlined operation were almost unanimously enthu-

siastic as to the results obtained and the possibilities of future development. The executives who had authorized the purchase of such trains in the last few years were equally enthusiastic and planning to increase the scope of such operations. Even those executives who had originally opposed it and were forced to purchase streamliners to meet competition had become ardent adherents of the new school. The sudden confusion into which all business has been thrown has changed these attitudes somewhat, but unless passenger service is permitted to become completely demoralized under present unsettled conditions, passenger progress will continue and accelerate when these abnormal conditions are relieved.

The attitudes of several of the executives who were interviewed are presented here as a cross section of railway thinking regarding the present and future of passenger traffic.

F. E. Williamson

President,
New York Central

RAILROAD passenger transportation today presents the paradox of an expanding public demand, accompanied by an inability to expand facilities to meet that demand; in fact, the railroads are now having to serve the public with fewer coaches because of troop transportation. The competitive struggle has continued undiminished, although it has, temporarily only, ceased to grow more intense. For the time being, conditions brought about by the war have acted as an "umbrella" against further increases in competition from airlines, buses and private automobiles, but when, at the end of the present emergency, that "umbrella" closes, the railroads will be deluged with new competition.

Automotive vehicles left over as surplus equipment from World War I were the advance guard of the army of motor vehicles which, aided by business depression, inflicted such enormous casualties in railroad ranks in the two decades following. The highway vehicle army—freight and passenger—will doubtless grow more formidable with the end of the present emergency. But the vast army of airplanes, flying personnel and aircraft manufacturing facilities which the end of this war will release for commercial pursuits promises to revolutionize passenger transportation (and perhaps even some phases of property transportation) just as it has revolutionized warfare.

If the railroads should fail to foresee what present developments in aviation will mean in terms of future competition, the consequences may be just as serious to the life of their passenger business as the failure to foresee the part of the airplane in warfare was to the lives of the European nations which were laid low by it. The ultimate loss to the air of all or nearly all the railroads' present sleeping and parlor car passengers, express, mail (at least first class mail) and no one knows what or how much freight business, appears uncomfortably probable.

Appreciation of significance, the essential first step, must be made effective by action. The problem of developing an effective course of action is sufficiently difficult to challenge the ingenuity of the best minds in the industry. Some aspects of this problem seem quite clear, however. Every economically sound improvement in rail passenger transportation, particularly modern equipment of high pay-load capacity, is an essential part of that course of action. Service and merchandising methods must be made better in order to attract and retain public patronage. Costs must be reduced because low price to the public is essential to the selling of any commodity, not excepting rail transportation, in a competitive market.

To put itself in a position to meet this challenge, the New York Central is just completing a 1941 passenger equipment improvement program which is the largest in the railroad's history. The program involves capital expenditures of almost $9,000,000 and includes 95 new deluxe reclining seat coaches, two complete new streamlined trains totaling 32 cars for the Empire State Express, rebuilding and improvements to 7 cars for the new James Whitcomb Riley, air-conditioning of 100 coaches and 10 dining cars of present ownership and a number of smaller improvements.

Equally worthy of consideration is the question of railroad participation in air transportation. Surely the railroads should not "miss the boat" (or the plane, if you please) as they did when their then-despised highway competitors were infants with growing pains. Whether a great business organization can afford to put all or nearly all of its eggs in the basket of a single form of transportation is seriously open to question.

The railroads *must* make use of their opportunity to prepare today the solution for the problems of tomorrow—problems whose general outline appears as clear, if one will only look, as is the certainty of their descending upon us.

E. J. Engel

President,
Atchison, Topeka & Santa Fe

THE modernization and improvement in railway passenger service in the last decade has been one of the outstanding achievements in railway history. There can be no doubt that the air-conditioning of passenger train cars, the use of lightweight, streamlined equipment in passenger trains, and the development in the use of high-speed steam and Diesel-electric power to step up passenger schedules have resulted in re-awakening public interest in rail travel, have enabled the rail-

roads to retain a large amount of passenger business that otherwise would have been lost, and have helped to regain to some extent traffic which heretofore had been diverted to competing agencies.

F. S. McGinnis

Vice-President, System Passenger Traffic, Southern Pacific

MY feeling as to the future of railway passenger service is one of optimism. It is impossible in these days to peer very far into the future. We know that now our passenger business is very good, with substantial increases and with good prospects of continued heavy business for a time, how long we can only guess.

What will come after the war is over no one knows and there is little on which to base a guess. We will have changing business conditions and a possible business slump. That, however, will be temporary, at least in a comparative way, for I think that, if we take a long range viewpoint, we must believe that we are headed upward, not downward.

Looking ahead after the war is over, we must face the probability that competition with rail passenger service will increase both by land and by air. But I feel that our rapid progress in improving our rail transportation and our continued efforts to modernize our service and develop new ideas, will provide us with a basis of service that will help us face that competition, whatever it may be. We will have difficult problems and we will have our hands full meeting them. But problems and difficulties are not new to the railroads and I am sure that we can surmount them, as we have done in the past.

Many railroads, of which Southern Pacific is one, have gone ahead aggressively and progressively in recent years and despite financial difficulties, with modernization and improvement programs, as to both trains and equipment, and also in connection with sales offices and other facilities where we carry on our business with the public. The public response has been gratifying, both from the point of view of the public attitude and from the less abstract but very satisfactory evidence of cash in the till. Our streamlined trains . . . the "Daylights," the "Lark," the "Sunbeams," which we operate exclusively, the "Cities of San Francisco," operated with the Union Pacific and the North Western, and our winter train, the "Arizona Limited," operated jointly with the Rock Island . . . have all been successful trains, all moneymakers. The most successful of these, financially, are those providing streamlined service for mass travel, but all have more than paid their way.

There is much yet to do in the modernization of passenger service, but we intend to step ahead in this program as fast as we can. With an improving financial situation, there is much more that we hope to accomplish, depending of course on limiting factors of availability of materials and supplies necessary in equipment construction. With the good start that the railroads have already made and the further progress that they expect to make in the next few years, the railroad passenger service of our country will be so geared to public needs and desires that we shall be able to carry on successfully through adversity, if such develops. With a basis of progressively improved service, backed up by an aggressive sales, advertising and merchandising program, I count on increased public acceptance, plus our own resourcefulness and ingenuity to see us through whatever may develop.

W. M. Jeffers

President, Union Pacific

A NEW era in railroad transportation began when the Union Pacific announced America's first streamlined train in the spring of 1933. The delivery and initial trip of this train created a sensation in the railroad world. Today this type of train has been adopted by many railroads.

Equally important was the inauguration by the Union Pacific in July, 1935, of its now-famous Challenger, providing low-cost transcontinental service. Facilities never before available for coach travelers were incorporated in the Challenger. Stewardess nurse service, low-cost meals, new type reclining seats, blue night lights, radios and complete air conditioning were among these new passenger comforts. At the same time the construction of lightweight equipment of new design was ordered for these popular trains and today many other railroads have adopted these services in winning passengers back to the rails.

In 1936 the Union Pacific made an intensive survey of its freight service by actual consultation with thousands of shippers. The Challenger freight service—overnight from key radiating points, enabled shippers to broaden their markets, reduce inventories and in general to do a better job with their customers. From the railroad standpoint this service has done much to halt the erosion of less-than-car-load freight which had been going to highway transport.

These three important progressive steps in railroad service have been the source of much gratification to members of the Union Pacific family, who pioneered their development. They mark a real contribution to the industry and have served to demonstrate that the romance in railroading is just as alive today as it was in the days when the rails were pushed westward to join the Atlantic and Pacific seaboards in the defense of this nation. Today these same strategic rails are functioning in the defense of this country—in the rapid, safe trans-

port of men, munitions and materials, as well as taking care of the regular commercial freight and passenger traffic.

Ernest E. Norris

President, Southern

THE Southern has improved its passenger service since January 1, 1941, by the utilization of diesel-powered locomotives on The Crescent between Washington and Atlanta. Diesel powered locomotives have also been provided on certain of our through trains operating between Cincinnati and Chattanooga, Tenn., and Atlanta and Macon, Ga.

In April of this year the Southern inaugurated The Southerner between New York and New Orleans, operating via the Pennsylvania to Washington and thence over the Southern through Atlanta and Birmingham. While electric locomotives are used between New York and Washington, this train is diesel-powered between Washington and New Orleans. The equipment is the latest achievement in modern coaches, with individual reclining chairs; dining cars where popular priced meals are served; and tavern-observation cars. Train passenger representative and hostess service are provided at no extra transportation cost. The public has shown its appreciation of this service to the extent that accommodations on the train have been practically sold out since its inauguration.

Last May the Southern also inaugurated The Tennessean between Washington and Memphis, which is likewise the last word in modern coaches, with individual reclining chairs, dining and tavern cars and with train passenger representative and hostess service without extra transportation cost; popular priced meals being served in dining cars. This train is diesel powered between Bristol and Memphis, Tenn. It carries modern sleeping cars between Washington and Memphis; between Chattanooga and Memphis; and between Bristol and Nashville, Tenn.

On December 13 of this year we will again inaugurate in seasonal service the Florida Sunbeam, between Chicago, Detroit, Cleveland, Cincinnati and Miami, Fla., with greatly improved equipment. This train will be all-Pullman, operated by diesel power, between Cincinnati, and Valdosta, Ga.

Because of the location of many large Army camps and National Defense industries in the South, the Southern is doing its full share toward national defense in handling the great volume of soldier traffic incident to the training camps located in its territory. In addition to the many extra cars in our regular trains, we handled a total of 656 extra trains, carrying 8,346 cars, with a total of 225,781 men during the period from April through October. Over and above the large number of troops being handled under orders in connection with maneuvers, etc., we are now busily engaged in making arrangements to handle a very large additional load by reason of the Christmas furlough of troops now stationed in the South.

The future of the Southern's passenger traffic is unpredictable at this time. No one can now even guess when we are going to return to normal conditions.

L. R. Capron

Vice-President, Chicago, Burlington & Quincy

IN common with most other railroads of the United States, the Burlington Lines enjoyed an increased passenger traffic during 1941. Many of the factors contributing to this increase seem likely to continue during 1942. Figures for passenger traffic on the Burlington during 1941 will run about 20 per cent ahead of 1940, giving the railroad one of its best passenger years in more than a decade. While the movement of troops and selectees constitutes an important element in the increase, this traffic alone cannot be credited with all of the gain. Travel to the Western national parks and other summer vacationlands was heavier than in 1940, and commercial travel has been heavier, due no doubt to the direct and indirect stimulation of national defense activities. The removal of more than a million men from their homes to army camps in various parts of the country also has resulted in a noticeable two-way traffic —soldiers on furlough enroute to and from their homes, and relatives and friends enroute to and from the army camps to visit soldiers.

While increasing defense taxes may curtail the money that some people will have available to spend during 1942, there is no doubt that defense activities will increase the net income after taxes of many others; therefore, at the present writing it appears that, barring some acute situation growing out of war conditions, passenger travel should continue to be satisfactory throughout 1942.

The Burlington's Zephyrs are continuing to attract a splendid volume of traffic. The Zephyr Rockets, operating between St. Louis and St. Paul-Minneapolis over the Burlington and the Rock Island, which were inaugurated early this year, have been exceptionally well received. A similarly outstanding business has been done by the Texas Zephyrs, which are enjoying their first full year of service between Dallas-Fort Worth and Denver. The Burlington's overnight Denver Zephyrs between Chicago and Colorado during August averaged over 200 revenue passengers for each mile run, an extraordinarily high average load for any long-distance Western train.

Excellent business also was handled on the Exposition Flyer, operating between Chicago and California via the Burlington, the Rio Grande and the Western Pacific, and by the North Coast Limited and the Empire Builder, operating between Chicago and the Pacific Northwest, the former in connection with the Northern Pacific via the Yellowstone gateways, the latter in connection with the Great Northern via Glacier Park. Indicative of the fact that much of the Burlington's increased traffic during 1941 is not due directly to military or defense activities, was the showing of the Burlington Escorted Tours, which handled 50 per cent more vacationists to Western vacationlands than in 1940.

E. M. Durham, Jr.
Chief Executive Officer, C. R. I. & P.

THAT passenger traffic had become a serious problem for the railroads is proved by the fact that on the Rock Island Lines, as an example, passenger revenue declined from $23,857,116 in 1926 to $5,819,976 in 1933. The problem was created in part by competitive forms of transportation, including private automobiles, and in part by the prevailing depression. Since 1933 the trend in passenger revenue of this system has been upward. In 1940 the system's passenger earnings were $8,271,251, and this year they will be substantially above that figure.

The experience of the Rock Island is, in general, similar to that of other railroads, but it has had exceptional benefits from pioneering in new equipment and new methods. Today it operates 15 Diesel-powered Rocket trains between important communities, besides a seasonal train of similar type between Chicago and Arizona. The public has given these trains magnificent support. At the same time improved equipment and higher speed have steadily increased travel on the system's standard passenger trains.

These facts are cited to establish that an increasing percentage of passenger travel is being regained by the sort of service provided today. Never has railroad travel been so fast, so luxurious and so inexpensive as it is at present.

The railroads are giving their passengers more for their money than ever before. Excluding suburban travel, the Rock Island in 1940 received an average of only 1.81 cents per mile, for all the improved service, compared with 3.32 cents in 1926.

Based on all these considerations, I have no ground for supposing that there will be any pronounced reversal of the upward trend in railroad passenger travel except through some extraordinary cause—such as another depression, affecting all activities. Even with the expansion of airplane travel, this trend has developed. I have every expectation, therefore, that the comfort, speed and cheapness of railroad travel will obtain for the railroads a growing proportionate share of the total business in the future, and that the railroads will be alert to adopt new ways and methods to make their service attractive. They are not standing still; they will not stand still.

What Happened to Business Is a Warning to Unions

"During the last part of the nineteenth century, and the first part of the twentieth, there was a long period when the financiers and the industrialists of this country prospered. It was a period of enterprise and achievement and the men who directed that enterprise inevitably acquired power. Gradually those men began to over-reach their power. During the 'Twenties, one administration after another 'played ball' with big business. Legislation was passed in their interest. So greedy and reckless did they become that many of them abandoned the most elementary laws of honesty and caution. Financial leadership became, in many cases, financial racketeering.

"The reactions from those excesses were severe. We turned against those industrialists and financiers. We investigated them, we denounced them, we tore their structures to pieces. Society became vengeful beyond the point of reform and so hurt itself by destroying the good along with the bad. It put fear in men's hearts and killed the spirit of enterprise and adventure which were business's great contributions to it.

"The new government that we put in swung far in the other direction. Legislation was passed in favor of labor, the courts rendered decisions for labor; labor leaders, not business men, were welcomed at the White House.

"But there occurred during the 'Thirties exactly what had occurred during the 'Twenties. Just as some business men over-reached, when they were given the power, so some labor leaders, now that they have the power, are over-reaching. Like industry before it, labor is now represented by powerful individuals, some of whom do not hesitate to flout the government. Others, instead of racketeering in finance, are racketeering in labor.

"I came into business just in time to reap the punishment that was being meted out in the 'Thirties. I experienced the vengeful excesses of that time. I saw society and government carry their punitive measures to a point where the country at large suffered. And for the sake of the country, I don't want to see it happen again. For I know democracy will go equally far in punishing labor leaders who over-reach, and the results will be equally disastrous.

"And so I say to labor now, I pray with labor: Do not destroy yourselves by bringing down the wrath of the people upon you; for in hurting yourselves you are hurting your country. . . .

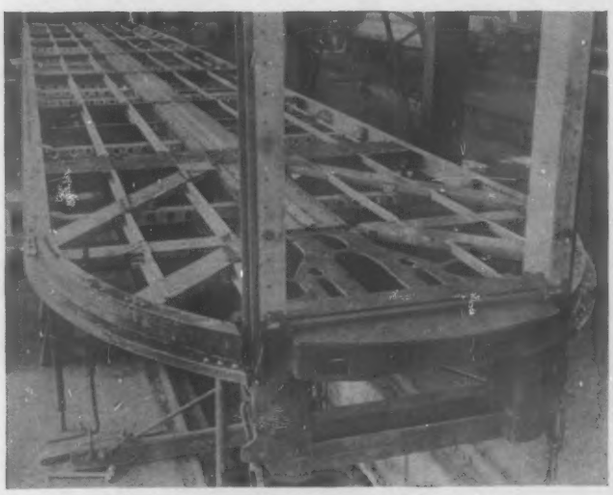
"There has been a tendency to blame the present crises on the unpatriotic attitude of labor. That is wrong. The workmen of this country are deep and fervent patriots. They have risen in the past, and they will always rise to defend this country whenever it is in danger. The fundamental reason for these labor crises is not labor's lack of patriotism. It is in part the short-sightedness of both industrial and labor leaders; but in even greater degree, it is the failure of the administration to announce a clear and open policy for labor—a policy by which every workingman may know what his duty is."

—From an address by Wendell Willkie to the Churchman Associates, New York, Nov. 18.

Clean Lines and Large Window Areas Feature the Modern Passenger Car

Passengers Benefit by Refinements in Car Design

Lightweight construction continued with emphasis on easy riding and the inclusion of ultra-modern comfort and convenience features



A Typical Underframe of a Lightweight Passenger Car

WHILE spectacular improvements in the general construction of railway passenger cars since publication of the last Passenger Progress Issue of *Railway Age* are largely notable for their absence, a vast amount of time and effort have been expended, in the aggregate, in perfecting refinements of design which unquestionably give rail passengers more comfort, convenience, luxury and safety per transportation dollar than was ever available before. The trend toward lightweight equipment designed for easy riding at high speeds has continued and, in fact, very little passenger equipment is now being built which embodies earlier heavy types of construction.

During the past 12 months, two 14-car trains, constructed primarily of strong aluminum alloys, have been delivered to the Chicago & North Western, Union Pacific and Southern Pacific, and one two-car train, built of the same material, to the Illinois Central. It appears probable that few, if any, additional passenger cars will be constructed of aluminum as long as the present national emergency continues. Alloy steels have been extensively used in the construction of modern passenger equipment, including both low-alloy, high-tensile steels and high-alloy, high-tensile or stainless steels. Of the 60 trains, including 496 individual cars, installed or ordered since the last Passenger Progress Issue, at least 60 per cent embody low-alloy, high-tensile steel construction for the most part, with the car bodies fabricated largely by welding.

Since no blanket priority rating has been granted by the Office of Production Management for railroad passenger cars, all builders have experienced more or less difficulty in obtaining essential materials. The prediction is made that scarcity of nickel will probably prevent steel producers from supplying either stainless steel or low-alloy, high-tensile steels in which nickel is used. However, some of the low-alloy steels, containing only the more readily available elements, will doubtless continue to be obtainable. One carbuilder has announced the development of a new and superior stainless steel which utilizes manganese and saves about half of the nickel formerly required.

The demand for high operating speeds in passenger service and consequent reduced car weights, if motive power requirements are to be kept within reasonable economic limits, has forced the use of special alloys in passenger-car construction in spite of their higher cost on a pound basis. The improved physical properties of

the new steels, however, in conjunction with greater resistance to corrosion, abrasion, etc., have enabled them to be utilized in welded car structures with weight savings up to approximately 33 per cent. This reduction in car weight for equivalent capacities, therefore, goes far to offset the effect of using relatively expensive special alloys in constructing the cars. In certain cases, where increased standardization of car types has been possible and accompanied by the use of more efficient welding and fabricating methods, the cost of constructing modern lightweight passenger cars has been decreased somewhat during the past 12 months in spite of further refinements in design, interior fittings and finish.

Experimental Coach Sleepers in Test Service

Two new types of experimental cars include a high-capacity coach sleeper, four of which are now in test service on eastern roads, and an order for three pendulum-type cars, one of which has been completed and is now being tested on a western carrier.

The coach sleeper is designed to combine the best daytime facilities of a de luxe coach with the advantages of a Pullman bed. In the latest design of this car, an aisle on one side of the car gives entrance to 12 rooms or compartments, 10 of which are designed to accommodate three persons each, and the remaining two, six persons, or a total of 42. During the day, each passenger has a comfortable upholstered seat with sponge rubber cushions, adjustable in the slope of the back cushion and also in the rake and height of the seat cushion. Arm rests separate the three seats in each unit, folding into the seats at night. Foot rests contribute to comfort and relaxation during the daytime.

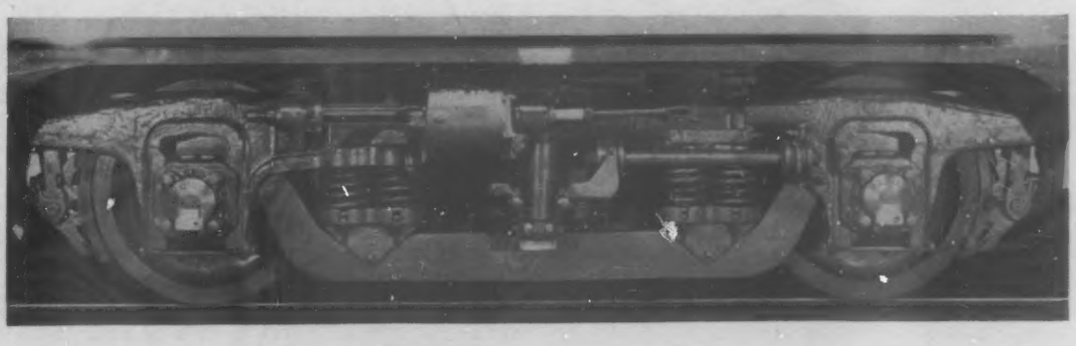
Compartment berths are arranged in tiers of three. The lower berth is formed by lowering the seat back, the upper berth is stationary and the middle one is raised against it during the day. Individual berth curtains, fastened on the inside, assure privacy. A broad, sturdy, stairway-type ladder, removable when not in use, gives easy access to the middle and upper berths. Ample facilities are available for the accommodation of wearing apparel, hand luggage and even shoes. Each compartment is equipped at the window end with a wash basin, furnishing hot and cold water, dental faucet, a mirror and an electric shaving outlet, these facilities being intended for use only during retiring and rising hours. The car is designed with ample general and individual berth lighting. The inflow of air from the general air-conditioning system into each berth is also individually controlled. The same rate is charged for berths, whether upper, middle or lower, or whether in 3- or 6-berth compartments, the rates being approximately 30 per cent of those applying for lower berths in standard cars.

The pendulum-type car was first demonstrated in 1938 and subjected to road tests which indicated the desirability of certain changes and improvements in design in order to meet more fully railway operating requirements. The present car, however, like its predecessor,

One of the First Successful Disc-Type Brake Applications

employs a unique method of mounting the car on trucks which also include a number of novel features of construction. The car body is, in effect, suspended from the trucks, floating on soft, long-travel vertical springs in a plane above the center of gravity of the body. The supporting springs permit, through horizontal deflection, all of the necessary truck motion relative to the body, this motion being positioned and controlled by horizontal links, restrained by rubber, acting between the body and the truck frame well above the center of gravity.

With the car body sprung above the center of gravity, the spring action is designed to be relatively soft, and



An Easy-Riding High-Speed Truck

One Means of Meeting the Troublesome Hand Luggage Problem

any tendency for body roll on curves is in the direction to correct for uncompensated side force on curves. This "banking" action contrasts with the action of a car of conventional construction which leans outward on curves without sufficient superelevation for a given speed. Simple shock absorbers are applied to dampen the harmonic oscillations for both vertical and lateral motion.

The builders of railway passenger car equipment have demonstrated notable ingenuity and resourcefulness in perfecting car details in the past year, developing and utilizing new materials, and designing novel interior arrangements to gratify the most exacting passenger taste for colorful modern surroundings. Also comfort and convenience features are second to none. An outstanding example of what can be done along this line is afforded by the club car Hollywood, included in one of the 14-car aluminum trains mentioned previously in this article. Both plastics and synthetics are used exclusively for decorations and appointments, thus avoiding the use of metals which might be needed for national defense and at the same time securing some highly unique effects. Wall panels are made of Formica in the lounge section. In other parts of the car, wainscoting, pier panels and frieze panels are tempered Presdwood. Window capping is Formica. Two synthetic materials, Nylon and Saran, are used for furniture upholstery and floor covering. Even decorative plants used in this car are a fabricated material, Lucite.

Truck Design Vitally Affects Riding Qualities

What passengers are primarily interested in, however, whether they realize it or not, is a safe, easy and comfortable ride. With continued emphasis on the necessity for smooth riding at high speeds, attention has been focused on truck and wheel conditions designed to accomplish this result. Owing to the saving of weight made possible by modern materials and methods in passenger car construction, the 4-wheel truck has been found adequate, from a load-carrying standpoint, with the exception of a limited number of applications under the hinged joints of articulated car-body units. In general, recent passenger car trucks, designed for use under lightweight equipment, utilize helical instead of elliptic springs in combination with hydraulic shock absorbers to dampen vertical oscillations. In one of the most successful improved designs, rubber-cushioned bolster stayrods and pedestal liners, insulated center plates and sound-deadening pads, located as required at various points in the truck construction, assist in absorbing high frequency vibration and reducing noise.

Roller bearings continue to be widely but not exclusively used in modern passenger truck construction, and frequently protective devices are applied in the journal boxes to give warning of excessive journal heating. The stench bomb depends upon odor to warn trainmen of hot journal conditions. The thermal-type heat indicator is electrically connected to a common relay for operating audible and visible signals in each car. In general, unit clasp brake equipment is applied to the trucks frequently with an anti-rattling device, high-tensile steel brake levers and case-hardened and ground brake pins and bushings. Several manufacturers are continuing experimental and service tests of disc, or rotor-type brakes which promise to give greatly improved train braking performance and increased wheel life by taking the braking load off the car wheels. Both superior riding qualities and reduced maintenance cost are objectives sought in modern truck design.

Improved steel wheels are meeting the specialized requirements of high-speed passenger train service to an extent never before realized. The Association of American Railroads specifications divide heat-treated wrought-steel wheels into three general classifications based on carbon content: Class A being a low-carbon wheel for use under severe braking conditions but light loads; Class B, a medium-carbon wheel used where braking requirements are high and wheel loads somewhat heavier; and Class C, a high-carbon wheel for use under moderate braking conditions and high wheel loads. The Class B wheel, with a carbon content of about 0.62 per cent, is meeting general favor for high-speed service and, contrary to the mistaken idea sometimes entertained that lowering the carbon content produces softer wheels and reduces service life, the Class B wheel has a considerably higher Brinell hardness than unheat-treated wheels and, in comparable service, gives equal or better mileage than the old type. Generally speaking, the use of lower-carbon wheels is said to give almost complete freedom from thermal cracking. Because of their greater economy and the greater safety factor, it appears probable that, in time, Class A and Class B heat-treated wrought-steel wheels will be used almost exclusively on passenger equipment.

More exacting shop work as regards proper mounting, and turning or grinding to assure wheel treads concentric with the journals, are essential in many instances if bad riding characteristics and short service life of passenger car wheels are to be overcome. It is difficult to turn wheels round and concentric with the journals in the average lathe to an accuracy much closer than .02 to .03 in., but, by the use of a grinding machine, this tolerance may be reduced to .003 in. with definitely improved riding qualities. The exact mating of wheels on the same axle, with a difference in diameters limited to .005 in., is recommended in the interests of reduced flange wear, a desirable result also contributed to by well lubricated truck center plates.

Tread wear limits, also, should be set with the greatest care, making them as high as consistent with good-riding properties for the respective classes of service on individual roads. This conserves valuable wheel service metal which is frequently wasted owing to the tendency, sometimes exhibited, of blaming all bad-riding on the car wheels. The question of what tread contour produces the smoothest-riding truck or car is still an

open one, after many years of discussion, but experience is said to indicate that the best general results, particularly as to mileage between turning, are given by the cylindrical tread with a drop-off taper for 1⅝ in. at the outside and a large radius at the corner. This taper is apparently required in the tread contour because much of the hollow-tread wear is not actually wear but is a flow of metal which has been heated by the brake shoe.

Car Heating and Air-Conditioning Progress

More accurate and generally satisfactory control of car temperatures during the heating season are being secured with modern equipment installed in passenger cars and designed to supply heating in response to the requirements of various zones. The heart of the control system for both heating and cooling is the thermostat, and the replacement of vacuum by pressure filled glass tubes has gone far to overcome difficulties formerly experienced with split mercury columns. The development of the double-bulb mercury-tube thermostat has been an important factor in securing a cycling action which gives remarkably close control of temperatures for both overhead and floor heat, properly proportions them and accurately varies the heating output from minimum to maximum in direct accordance with temperature requirements. Suitable equipment has also been developed to keep humidity within desired limits and circulate the air properly, so car heating and ventilating experts are now working on the problem of producing a certain degree of ionization of the air, tests having apparently indicated that negative ions cause a feeling of exhilaration while positive ions tend to cause fatigue, dizziness, nausea, etc. Temperatures above 145 deg. F. will pasteurize air, destroying its vital quality, and heating equipment is now being designed to minimize this effect.

Various types of electro-mechanical, direct-mechanical and steam-jet air-conditioning systems are being installed and giving excellent results in cooling and conditioning the air in passenger cars. Most effective air conditioning in hot weather is obtained by continuous operation of the compressor, the air to the car then being reheated to the proper temperature with steam. Constant dehumidification is thus obtained and cycling of the compressor is avoided. This requires steam on the cars and also calls for an impracticable amount of power for systems obtaining their power from the car axle. New apparatus is now available which overcomes these difficulties. Unloading compressors which will operate on all or part of their cylinders or variable-speed compressors are used in conjunction with split evaporators which will operate at partial or full capacity. Another type of equipment which has made notable progress and been widely installed during the last 12 months is the self-contained propane-gas-engine-driven system, with a direct-connected compressor, and the air-cooling equipment, including condensers, evaporators, dehydrator filters, heat exchangers, controls, etc., mounted on rubber vibration dampeners in a unit arranged to be easily withdrawn from underneath the car for inspection and repairs without disturbing the fuel, water, Freon refrigerant, or electrical connection.

Another new air-conditioning development is a self-contained Diesel-engine-driven system which has shown promise in experimental service. One important feature of this equipment is the possibility of supplying standby air-conditioning service in cars which make longer-than-average station stops en route.

Multi-vent air-outlet panels in the car ceiling have the advantage of uniform air distribution and are hinged so that the entire bottom sheets may be dropped for easy cleaning. One comparatively recent innovation is the use of combination air-outlet and lighting fixtures, located in the ceiling and spaced symmetrically on the longitudinal center line of the car. Separate filters, when installed for both fresh and recirculated air, maintain air cleanliness in the cars and sometimes a secondary filter is used to clean the fresh air even more thoroughly before it is mixed with the recirculated air. Precipitron filter units are being given service tests. This electrical device is located in the main air ducts and is designed to remove electrostatically all dust passing through the filter unit and also a high percentage of the bacteria. The results of preliminary tests were called "very satisfactory."

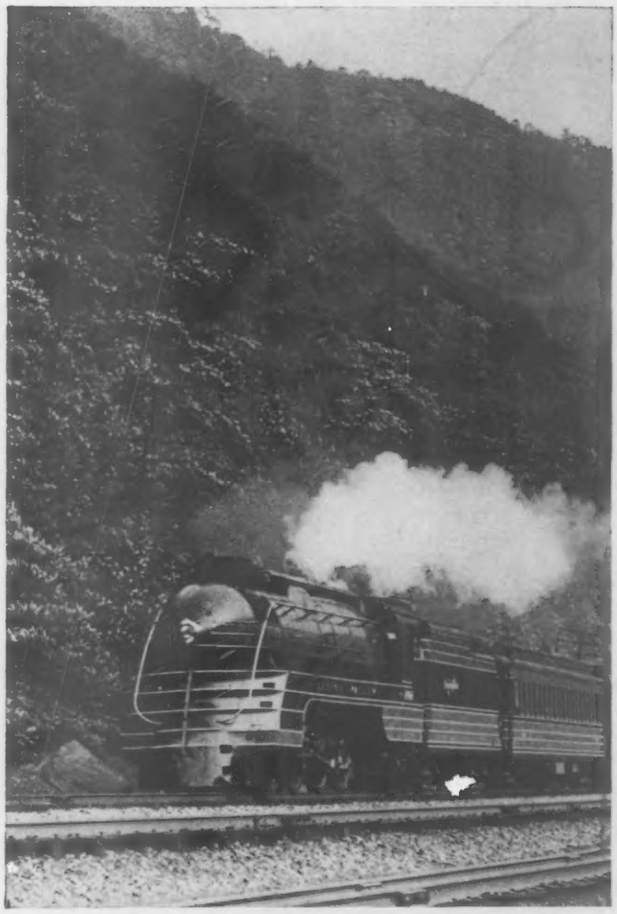
Four different types of plastics are now being used to make lighting fixtures in great variety to suit all forms of interior decoration. Smaller size fluorescent lamps to suit the needs of berth lighting and other special requirements have been made available. These include a 12-in., 8-watt lamp, and a 9-in. 6-watt lamp. Vibrating inverters for supplying 115-volt a.c. power to fluorescent lamps have been improved and a d.c. booster has been introduced which will raise the 32-volt d.c. power on a car to 64 volts permitting the use of fluorescent lamps on direct-current power.

Many ingenious small gadgets, too numerous to mention have been developed and installed in cars to contribute to the care or comfort of passengers. For example, electro-pneumatic door openers are sometimes used in conjunction with the end door lock, enabling a gentle push or pull to cause the door to open or close by air pressure. One of the most recent developments in radio equipment is the provision of radio pillow-type speakers, embedded in a sponge rubber pad which is placed against the head, allowing only the user to hear. Receptacles may be made available for plugging in when desired at each seat in club or lounge cars.

Polaroid Windows Are an Attention-Attracting Novelty

Motive Power for

High horsepower ca
ability demanded of
—Streamlining and
styling principal d
passenger and fr



Stream-styling on the Lehigh Valley

WHEN the idea of higher speeds for rail travel was given to the public by the lightweight streamline trains introduced in 1934, there began an evolution in motive power which in some respects has been as spectacular and has attracted as much public attention as has those phases of progress in railway travel with which the public comes much more intimately in contact. Aside from the impetus which these early oil-electric- and Diesel-electric-driven trains have given to the expansion of the use of Diesel-electric locomotives in passenger service, however, the striking characteristics of this evolution have been relatively superficial. Indeed, most of the factors which characterize the steam locomotive for high-speed passenger-train service were well established before the movement for greatly accelerated passenger-train speeds began. Basically, in fact, the same factors characterize modern steam locomotives for both passenger and freight service—high boiler capacity for high horsepower output; running gear designed to operate smoothly at high speed; the ability to make long continuous runs and accumulate high mileages between shoppings. The two latter factors spell high utilization and it is at this point that the Diesel-electric locomotives which have been rapidly finding their places in high-speed passenger service are giving a particularly good account of themselves.

Steam for High Speed

With a few notable exceptions, most steam locomotives built to modern designs are intended for freight as well

One of "The Prospectors" on the Denver & Rio Grande Western

Higher Speeds

pacity and high avail-
modern locomotives
lesser degrees of
istinction between
eight locomotives

as passenger service. Most of the 4-8-4 type locomotives are in this category, and the single-expansion articulated locomotives, built primarily for freight service on heavy gradients, are now designed to operate at passenger-train speeds and are used in both services.

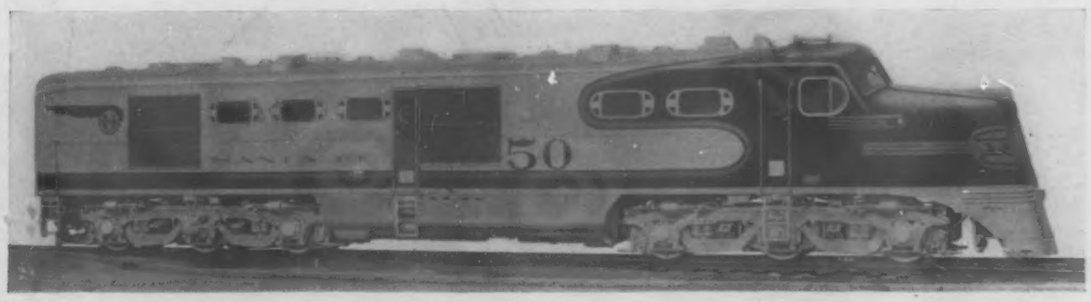
Most of the factors which characterize the modern steam locomotive, whether for passenger service or for freight service, have been available for periods of ten or more years. Considering the large proportion of the locomotives in today's inventory which are much older than this, however, the number well suited for high-speed passenger service is still relatively small.

Contributing to high boiler capacity are the higher working pressures which have been employed in many of the locomotives built during recent years. The use of alloy steel in the boiler shell has contributed to the ability to step up working pressures without excessive increase in the weight. Two types of alloy steels have been used—nickel steel and silico manganese steel. Another factor which has contributed to higher boiler outputs is the Type E superheater, now generally, but not exclusively, employed in new locomotives.

New conditions created by the higher pressures in boilers of alloy steel using treated feedwater have exacted their toll in severe deterioration and failure of boiler sheets. While progress has been made in combating these conditions, the railroads and builders alike are looking forward hopefully to the prospects of a further extension of welding in boiler construction when the five-year trial period of the first all-welded boiler, in service on the Delaware & Hudson, will have been completed. There is a widespread belief that a much better boiler structure can be produced by welding and, what is of particular importance, that its complete freedom from seams will prevent deterioration of the metal from caustic embrittlement.

An Electro-Motive Diesel-Electric on the B. & O.

One of the outstanding contributions to the ability of the steam locomotive to operate at high speeds is the use of lightweight reciprocating parts in the design of which the high-tensile properties of alloy steels have been utilized. These light parts and careful attention to counterbalancing have effectively extended the speed limits of the steam locomotive well beyond the diametral speed which was formerly considered roughly to mark the limit. As an instance of the possibilities in this direction, the 4-8-2 type locomotives built about a year ago for the



An Alco 2,000-Hp. Diesel-Electric Passenger Locomotive for the A. T. & S. F.

The First of an Order of 4-8-4 Streamline Locomotives Built by the Norfolk & Western

New York Central may be cited. These locomotives have 69-in. driving wheels. Extensive tests of the trial locomotives, which were the basis of their design, have demonstrated their ability to operate satisfactorily at speeds up to 85 miles an hour, and they are assigned to both passenger and freight service.

One of the most recent developments affecting the ability of the steam locomotive to utilize full boiler capacity at high speeds has been tested on Pennsylvania passenger locomotive No. 5399. The poppet valves and unrestricted steam passages on this locomotive have demonstrated the possibility of developing high mean effective pressures at high running speeds.

Another recent development affects the smoothness of performance of steam locomotives. It is the control of the lateral motion of all locomotive wheels which permits fitting all wheels to the gage of the track, eliminating all uncontrolled lateral motion for steady riding on tangent track and facilitating the adjustment of all wheels on curved track against cushioning spring resistance. This is particularly effective on long wheel-base locomotives and, again, is no less important in freight service than in passenger service. From the standpoint of the latter service, it is particularly applicable to 4-8-4's on which it has given an excellent account of itself.

Two of the factors in steam-locomotive design which have made for greater reliability and longer service between shoppings are the locomotive bed casting, which is now employed in the construction of new locomotives almost without exception, and roller-bearing driving-wheel, engine-truck, and tender-truck journal boxes. Neither of these developments is particularly new, but their presence on locomotives now being built distinguishes these engines from much of the passenger motive power now owned by the railroads.

Probably as important as any of the features of the steam locomotive itself in adapting it to present-day requirements for operation at high speeds over long distances without stops is the mechanical lubrication of most of the bearings in the running gear and the application of high-pressure grease lubrication to the others. On the modern locomotive scarcely a bearing, including the brake rigging and spring rigging, is now without definite provision for systematic oiling or greasing which can be attended to at terminals and requires only supervisory attention from the engineman en route.

Based on the number of orders for passenger locomotives since the last Passenger Progress Number, the 4-8-4 type is by far the most popular. Of the 65 steam locomotives ordered, 56 are 4-8-4 type, 8 are 4-6-4 type, and one an experimental steam-turbine locomotive. Most of the 4-8-4 type will be used also in freight service.

Diesel-Electrics

What has been said of the characteristics of the steam locomotive for high-speed passenger service can also be said with respect to the Diesel-electric locomotive. While needs for extremely high running speeds in passenger service can scarcely be met with a locomotive which is also adapted to heavy freight service, there are many places where passenger schedules can be maintained with moderate top speeds and, where freight trains must move at relatively high speeds. A single design of Diesel-electric locomotive is satisfactory for both services under these conditions. Such a situation is illustrated by the Diesel-electrics being built for the New York, New Haven & Hartford, geared for a top speed of 80 m. p. h. and intended for both freight and passenger service.

While the steam locomotive is being developed into a satisfactory high-speed steam motive-power unit, in several of the characteristics which distinguish it from steam locomotives of older design it can only approach, but never equal, the Diesel-electric locomotive. The latter excels the steam locomotive in its capacity for rapid acceleration through the low-speed range. The relative importance of this factor increases in proportion to the frequency of stops en route. Its freedom from the need for service stops over long distances is definitely helpful in keeping down top speeds for a given schedule speed. Where the time card is such that its high availability can be translated into high utilization, this also is a factor in which it has the advantage of the steam locomotive. It should be said, however, that only in selected runs or groups of runs can this be done. The cleanliness of the Diesel-electric locomotive is also of distinct advantage in passenger service, because it has a definite influence on the cost of keeping the train exteriors clean.

Since the last Passenger Progress Number orders have been placed for 43 Diesel-electric locomotives for road passenger service. As reported, 25 of these are of 2,000 hp. and 18 of 4,000 hp. There is, of course, a consider-

able degree of flexibility as to whether these locomotives will be used as single-unit 2,000-hp., or double-unit 4,000-hp. locomotives, depending upon traffic conditions.

Styling

Styling of locomotives to harmonize with the exterior appearance of particular trains was first discussed in relation to the steam locomotive. It received its first real impetus, however, as the result of the inauguration of internal-combustion traction power plants in the early articulated lightweight streamline trains for high-speed service. It then spread over into steam. Today, more than 25 railroads are operating specially styled steam locomotives. These range all the way from those completely encased in outer garments which almost conceal their identity, to those on which simple panels have been added to the side of the running boards which permit the lines and color of window-panel areas on the coaches to be extended forward along the sides of the locomotive. Many of these are not modern high-speed locomotives and, of course, many locomotives entirely suitable for high-speed service are devoid of all signs of styling.

Self-Propelled Passenger Cars

Early in this article it was noted that the development of higher speeds in passenger-train service began with the lightweight articulated trains in which the traction power plants were built into the revenue car bodies. The demands of high-speed service, however, rapidly outgrew the built-in power plant, and the service in which most of the progress recorded in this issue took place has been of such volume as could be handled only by full-fledged locomotives. More recently attention has again returned to the possibilities of short self-propelled trains to provide high quality service where the volume of traffic is small. In the new development the pancake type of internal-combustion engine has permitted placing the entire traction power plant, as well as other auxiliaries, under the car bodies, leaving the interior of the train completely available for revenue service.

The most recent trains of this type are "The Prospectors" on the Denver & Rio Grande Western and the "Land O'Corn" on the Illinois Central. In each case the trains are two-car units with power plants under each car. In the former case the motive power is furnished by Diesel engines and, in the latter, by Hesselman oil engines which operate under much lower compression pressure than the Diesel and utilize spark ignition.

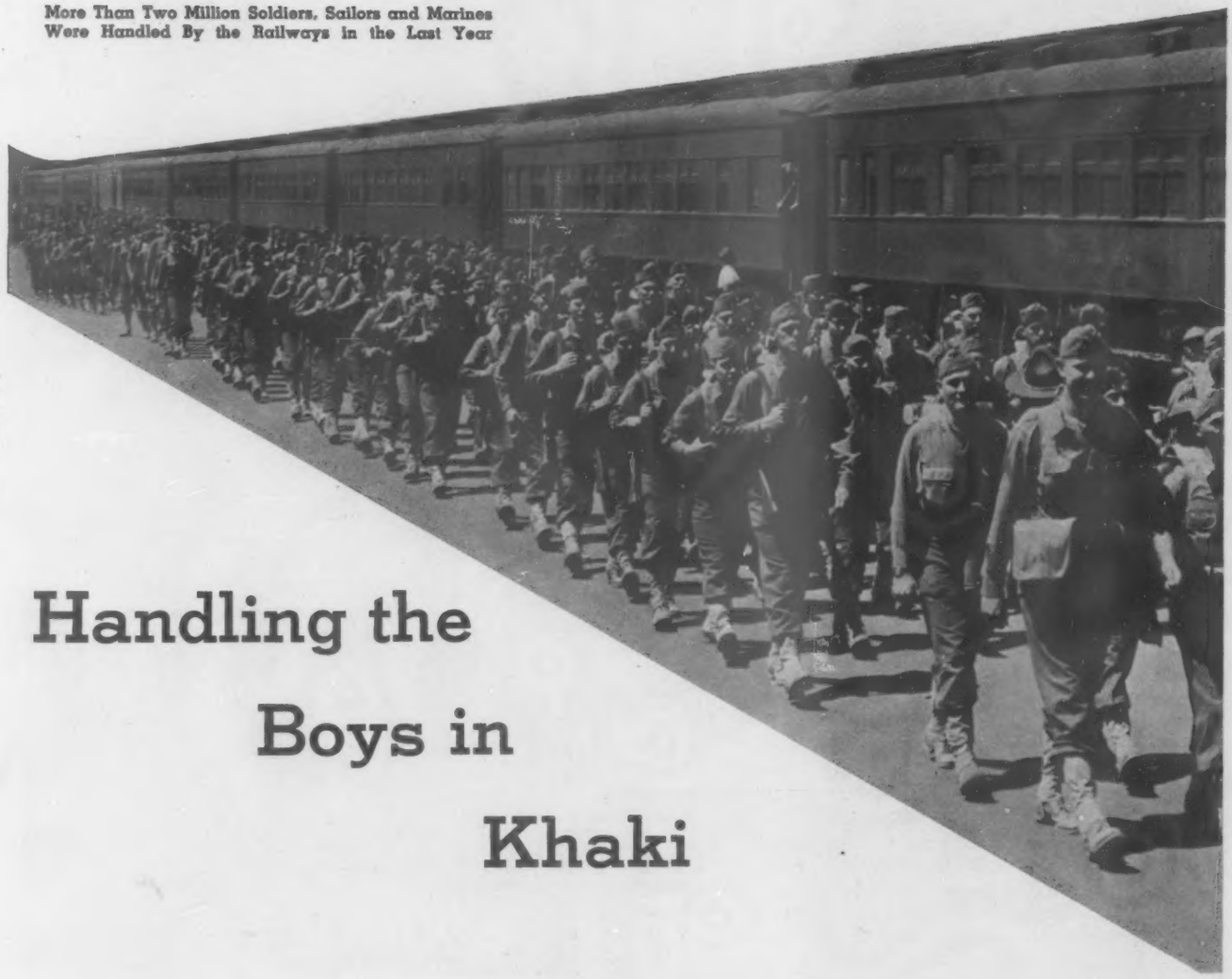
The power plants in The Prospectors utilize for the first time in the traction field the so-called amplidyne system of electrical control which functions to maintain a constant generator power output for each setting of the throttle of the Diesel engine. Another innovation in the power equipment of this train is the so-called normalizer which is, in effect, a supercharger functioning to maintain sea-level air pressure constantly at the engine intake. Thus, the changes in engine capacity which would result from wide variations in altitude are counteracted.

In the Land O'Corn the hydraulic type of transmission which has already been installed on several single-car trains has again been employed.

An Example of Simple Stream-styling

Styled for the New Empire State Express Trains of the New York Central

More Than Two Million Soldiers, Sailors and Marines Were Handled By the Railways in the Last Year



Handling the Boys in Khaki

THE smooth, efficient transportation of men and materials is of the utmost importance to national defense, and the railways, in the present emergency, have met every test. During the first year of concentrated troop movements—ending August 31, 1941, they handled more than two million members of our armed forces without any breakdown of the transportation machine. The railways, the quartermaster corps and other governmental transportation agencies have worked out a cooperative arrangement that has functioned perfectly so far and is geared to handle a much greater passenger traffic satisfactorily.

An analysis of the traffic handled during the 12 months from September, 1940, to August, 1941, as set forth in the attached table, shows the magnitude of the task. In October of last year, the strength of our army was 353,257 officers and men. On October 1, 1941, this had been increased to 1,582,000, showing that 1,228,743 men were added to the army in one year. Our other armed forces were similarly augmented.

Maneuvers this year were the most extensive ever held by the United States army. Starting last May in the vicinity of Fort Ord Calif., they will continue up to December 1, when the First Army will conclude tactical operations in the Fort Bragg-Fort Jackson area in the Carolinas. While the maneuvers this year have been the greatest in history, the number of men handled to and from the maneuver areas has not equalled the concentration of 1940. Only 135,000 men have been moved to maneuvers, partly because the largest area this year was in the Sabine River district of western Louisiana and eastern Texas, in close proximity to the base camps of the participating troops. Also, motorization of the

Troop Movements

Sept. 1940, to Aug. 1941, inclusive

	Handled in Regular Trains	Handled in Special Trains	No. of Special Trains
Army	105,830	1,133,829	3,658
Navy	41,590	31,496	173
Marines	10,787	41,178	106
C. C. C.	841	109,630	338
	159,048	1,316,133	4,275
Total in regular trains			159,048
Total in special trains			1,316,133
Selectees handled			604,896
Grand total			2,080,077

various army units has progressed sufficiently rapidly throughout the year to permit many organizations to move overland in their own automotive equipment. For the last four months of the year, an average of 250,000 men per month are expected to move. In addition, between September 15 and December 10, some 200,000 men will be discharged from the various forts and camps.

Railway Military Bureaus

For many years, military bureaus have been maintained by the various passenger associations at several points in the country, which serve as liaison offices between the railways and the officers of the various branches of the armed forces. These were developed in 1914, prior to which time all the various governmental authorities had to request bids from the individual railways, which frequently resulted in delays and confusion. These bureaus have now, of course, assumed added importance and have materially augmented duties. Since the start of the emergency, the Interterritorial Military Committee has been formed, consisting of the chairmen of the various boards, with H. W. Siddall, chairman of the Western Military Bureau, as chairman of the national committee.

Thus, central sources are created to which the military official personnel can apply for information as to rates, schedules, routes, etc., or to the general committee for interterritorial problems. These various bureaus are in complete control of the rates, routing and all other passenger traffic matters.

Routing the Traffic

All competitive railways whose routes enable them to serve specific points between which the traffic is to move, are given their proportionate share of the traffic. In a number of cases, the haul is short, but no discrimination is made when proper service can be rendered. Individual soldiers, or small groups, such as are constantly moving from place to place, are handled on so-called period routing orders. Under these, all such small groups move over certain specified routes between certain specified dates. At the expiration of such periods, the routes are switched so that competing lines are given their share of this type of military traffic.

The bureaus hold special meetings whenever a particularly large movement of troops, such as to army maneuvers, is impending. In such cases, the war department merely informs the bureau that a certain number of troops will be moved from and to specified places at certain times. The bureaus then arrange routing, service and equipment. So far, there have been no shortages of equipment, but the attainment of this end has required a considerable interchange of cars between different sections of the country. The manager of the military transportation section, Car Service division, A. A. R., A. H. Gass, who is in charge of the highly important work of providing freight cars for military transportation, has

Scenes Reminiscent of 1917-18 Are Being Re-Enacted Daily

offices immediately adjacent to those of the army transportation officers in Washington. The military transportation section serves also as the contact between the armed forces and the operating officers of the railways on passenger traffic as well. An army officer of the quartermaster corps is assigned to each of the bureaus.

In addition to the administrative heads of these bureaus, a large force of employees handles the duties of the troop movement section, the administrative section, the rate and traffic section and of the general office. The entire civilian personnel of the bureaus is paid from funds assessed against the member railways.

Bureaus Praised By Army

The advantage of these committees and bureaus is manifest. That they enjoy the respect and confidence of United States army officers is apparent from the many compliments paid them by the Quartermaster department. Their efficiency was demonstrated in a meeting held in Washington late last year. During the morning, members of the War department general staff outlined briefly the selective service system which was to go into effect and answered questions on the subject. On the afternoon of the same day, about four hours later, a simple, practical, efficient and mutually acceptable agreement was drawn up for handling draftees from the induction stations through the various stages to their final training camps. This arrangement has worked so well that it is still in effect.

The Selective Service Act of 1940 calls for supplying suitable transportation for 900,000 men a year for five years. Under the present system each soldier makes at least four moves in a year; from the local board, to the induction station; to the reception center; to the replacement center; to the training center. Figured on the present authorized strength of the army, and adding the return trip home, this means that a total of 7,000,000 man-moves per year are made by soldiers. This does not take into consideration casual travel in the Army and excludes the Navy, Marine Corps and C. C. C. entirely.

These movements, coming as they do along with augmented daily commercial travel, mean that maximum efficiency must be obtained from the available supply of equipment. Fortunately, the railways are not only adapted for handling mass transportation far more efficiently than any other agency, but they also have a large background of experience in such movements, being called upon frequently to handle huge crowds from place to place on the occasions of national conventions and other important events. Also, the annual Christmas, Decoration Day, Independence Day and Labor Day travel invariably mean a vastly increased load, of uncertain proportions. On Labor Day, 1941, for example, record crowds were handled all over the country. Experience in handling movements such as these—the size of which can only be guessed—makes the handling of troops under exact advance information a relatively simple matter. The furloughs for the coming Christmas hoildays present quite a problem. However, as described elsewhere in this issue in the report by Mr. Siddall to the Passenger Traffic Officers Association, co-operative arrangements have been made to solve this problem.

To meet the equipment needs, the railways have not only co-operated in sending equipment from one place to another as needed, but have also studied possible rearrangements of passenger service to release cars for the military forces. Readjustments of schedules in the Chicago-Florida service described elsewhere in this issue will save 43 coaches and, on the Illinois Central alone, schedule changes have been made throughout the system which will permit the diversion of 51 passenger-train cars to troop movements. Orders for new passenger cars have been somewhat disturbed by the priority situation, but the railways have not only purchased new passenger cars recently, but a number of the lines are now completing rehabilitation and rebuilding programs on passenger equipment they already own.

The magnitude of the problem of equipment is made more readily apparent by a statement as to this year's maneuvers, recently released by the Quartermaster General's office, as follows:

"On three occasions before December 1, when maneuvers will be completed, more than 100,000 soldiers will be traveling by rail at the same time. During the maneuvers in the Camp Beureagard, La., area, from September 1 to 30, for instance, 259,199 men were moved from distances up to 1,000 miles. For the November 3-30 war games in the Fort Jackson, South Carolina-Fort Bragg, North Carolina area, 146,000 soldiers must be transported from points as far off as Massachusetts.

"The Quartermaster plan is to have troops arrive at war game stations from three days to a week before maneuvers actually begin. The procedure for this complicated troop movement is rather simple in itself. First of all, a blanket order for the troop movement is issued by the Adjutant General's office in Washington. Well in advance of the mock warfare the Quartermasters in the respective corps areas send requests for routing instructions and arrangements to the trio of specialists in the Quartermaster General's office.

"The arrangements include time schedules and orders for placing the necessary equipment. With few exceptions, the bulk of troops headed for maneuvers will move on special schedules to avoid interference with regular train schedules. The average troop train will carry between 250 and 500 soldiers—about 50 men to each coach. Troop trains will vary in length from 5 to 10 coaches, with an occasional train made up of 15 coaches, exclusive of baggage and kitchen cars. When overnight transportation is arranged, fewer soldiers can occupy each car. Seven sleepers will be needed for 250 soldiers.

"During the troop movements, the Quartermaster General will be kept informed of the location of different soldier concentrations at all times. In the maneuver field, every post, camp and station with men in the war games will assign at least one Quartermaster officer, with one or more transportation specialists working with him to handle the local arrangements. Often one of these field route men will have a dozen trains under movement at the same time. When the war games are under way, the movement of troops will be kept secret. In making the necessary arrangements for this transportation problem, the Quartermaster Corps has the cooperation of the military section of the Association of American Railroads, which has offices adjoining those of the Quartermaster's trio, and the chairmen of the various passenger associations."

The St. Louis-San Francisco is typical of the roads in the Southwest so far as military traffic is concerned, and a brief description of its activities will be typical of most other railways with large camps along their lines. During the first six months of 1941, the Frisco handled more than 75,000 soldiers, sailors and marines, together with 14,000 C. C. C. men, in large and small groups over its lines. Some of the group movements were occasioned by the transfer of units from one station to another, some by selectees, some by transfer of units to and from maneuver areas, and still others represented

Regular as Well as Special Trains Handle Their Quota of Troops

travel to and from special schools, such as the School of Fire at Fort Sill, Okla.

The movement of troops into and out of Fort Leonard Wood accounted for a large proportion of this traffic. In addition to special trains, the Frisco has inaugurated a new train, the General Wood, between St. Louis and the station serving the Fort. Special trains are also operated between the Fort and St. Louis each week-end to handle soldiers on furlough. A Frisco passenger representative is assigned to the Fort on a full-time basis to give service and information to officers and enlisted personnel concerning individual trips, as well as co-operating on group movements.

The movement of 10,000 soldiers over the Southern Pacific late in the summer was typical of the manner in which these sudden, large movements are handled. These soldiers were sent from San Luis Obispo, Calif., Fort Ord and San Francisco, to repel a theoretical invasion of an area in the state of Washington. Preparation for this movement began with a joint conference between representatives of the Western Military Bureau, the S. P., and army officers, at which all the necessary plans were formulated.

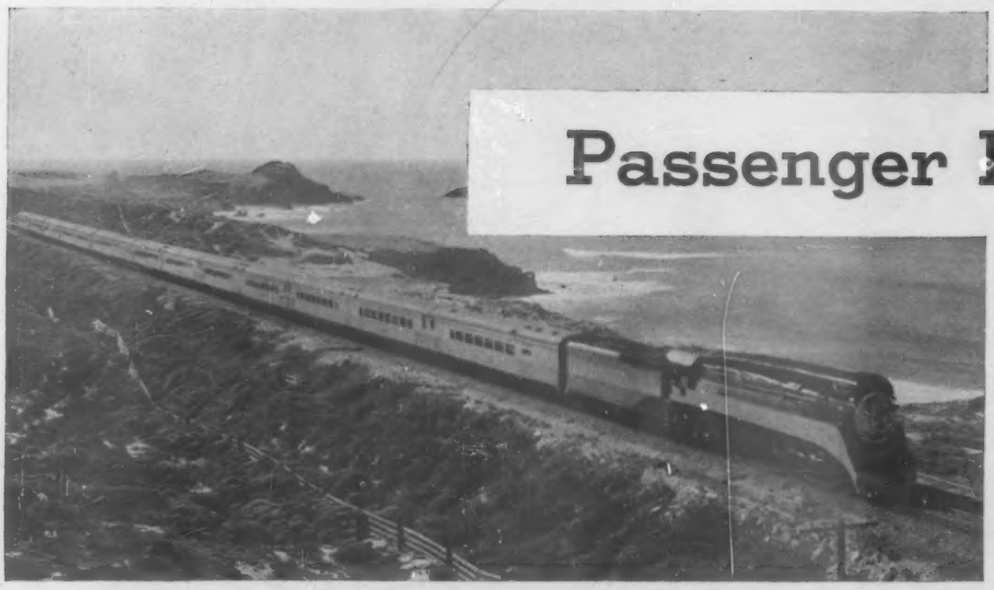
Pullman cars and coaches to make up the necessary 25 trains to transport the troops to the "battle" districts near Longview, Wash., and Olequa were assembled and the necessary assignment of locomotives was made. The army assigned a number (called a main number) to army outfits riding the different trains while the S. P. transportation office drew up the operating schedule. Transportation notices containing these schedules and other pertinent information, such as loading points, destinations, equipment, and identification of army outfits, were made up for each train. These notices were then sent not only to everyone on the railroad who was even remotely interested in the movement, but also to the A. A. R. and army officers.

Before the actual loading of troops started, the trains were exhaustively inspected by railroad and army men to see that everything was in order when the signal was given. Signal batteries and switches were inspected, Pullman cars cleaned, arrangements were checked for servicing trains en route, bridge and tunnels were checked, lighting of baggage-kitchen cars was inspected, and hundreds of other details were handled.

Getting the first train out of San Luis Obispo was characteristic of all loadings. One hour before train time the soldiers began assembling. Swinging down the road in close formation, each man carrying his full 60 lb. of field equipment, the squads halted before the cars assigned to them. The men then boarded the trains, 39 men to each car, two to a lower berth, one to an upper. Army officers and railroad representatives supervised all loadings. Every movement of officers and men, of railroad officials and workers, was unhurried, as the pre-arranged plans were methodically carried out.

The exact location of army trains is as important to the General Staff as the location of troops in battle areas. For this reason, the strategic importance of train-passing reports is great. Dispatchers note these passing times and hundreds of telegrams were sent to the military bureaus, to representatives of the A. A. R. at the points of destination, and to top ranking military men in Washington, D. C. These movements were recorded on a gigantic map in the nation's capital by means of constantly moving flags. Information was wired on all stops, delays, or ahead of schedule performance. Thus, at any hour, the headquarters men thousands of miles away could estimate the location of troop trains within the mile. An evidence of railroad flexibility was given during this movement when the destination of six troop trains was changed suddenly while they were en route, on surprise orders from army headquarters, and these diversions were promptly made.

Passenger Progress



Steam and Diesel-Powered Streamlined Trains Demand Strength, Integrity and Many Refinements in the Track Structure

WHETHER the outstanding progress in rail passenger transportation can continue, can keep pace with the demands of patrons and meet the competition of other forms of transportation, with maximum safety, will depend as much upon the track, roadbed and numerous other elements of the fixed properties of the railways as it will upon the cars and motive power that provide the service. True, the march of streamlined trains as to numbers and route miles operated, with their appealing appearance and appointments, may continue independent of the track and related facilities, but *streamlined operation*, involving high speed and unrestricted schedules, with maximum comfort and safety, cannot outstrip the track and these other facilities. In fact, such operation can be established and carried on successfully only where they, and especially the track structure, have set the pace.

Is the Track Keeping Pace?

In the face of the general acceptance of the streamlined train, with greatly accelerated schedules, the question of the track must be faced squarely by management and maintenance men alike. Whether the track structure is keeping pace cannot be answered by either "yes" or "no." It is held by equipment and operating men that the limiting factor in high-speed train operation is the track structure, particularly with respect to alinement and refinements in gage, line and surface. Yet, to the extent that thousands of miles of track are carrying streamlined train service at speeds of 90 to 110 miles an hour, satisfying equipment and operating men, and with comfort for passengers and unquestioned safety, the answer as to whether the track is keeping pace is, unmistakably, "yes." At the same time, to the extent that many streamlined trains in service today are operating on schedules little improved over those in effect under the operation of earlier equipment, or, in any event, far from the potentialities of the new equipment, due entirely to limitations imposed by the track structure, the answer to the question is equally as evident, that much track has not kept pace.

In only a few instances, if any, where streamlined train service has been inaugurated, has the track, generally speaking, anticipated the equipment and operating speeds put in effect. By and large, throughout the widespread expansion of modern passenger train service on one road after another, the equipment has been potentially "faster" than the track, and high speeds and appreciably shortened schedules have had to wait until the track has been brought into step. However, the fact that the necessary improvements in track have followed almost invariably, is evidenced on almost every streamliner route, as hour after hour has been cut progressively from initial schedules. This lesson has been well learned by those who may not have earlier felt its full significance—that the speed of passenger train operation, regardless of the type of equipment employed, cannot outstrip the track—that smooth riding, and comfort and ease of mind on the part of passengers are essential factors to successful high-speed train operation—and that only as these factors are given full consideration, can streamlined equipment give streamlined service.

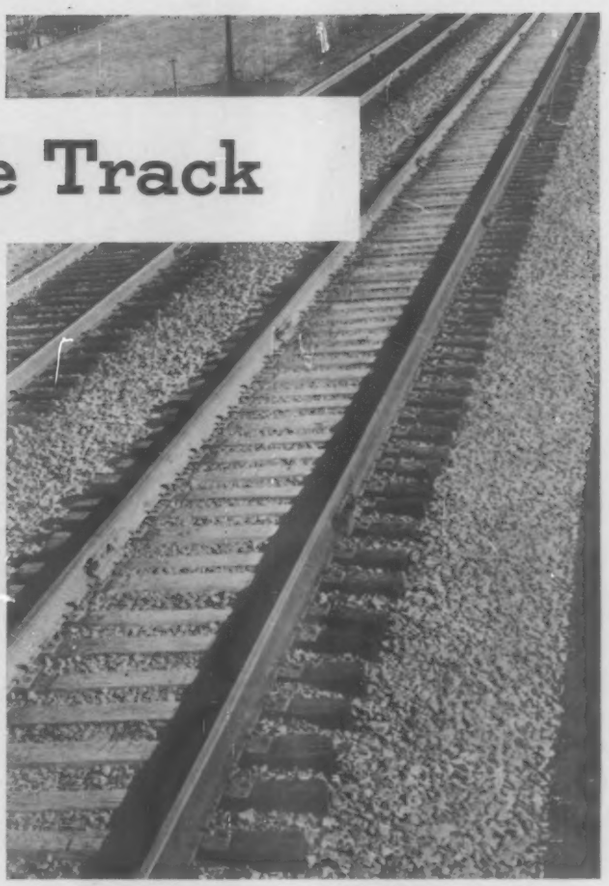
Irrespective of the extent to which the roadway and track have kept pace with streamlined equipment, and admitting that the ultimate in both has by no means been attained, it is accepted among maintenance of way officers that the means essential to roadway and track adequate to carry present-day passenger equipment at any speed it is desired to operate it, are understood and at hand, and await only further adoption by the different railways as circumstances warrant or available funds permit. There are still differences of opinion concerning the relative importance of each element of the track in attaining an adequate track structure for high-speed train operation, arising largely out of local conditions, but beyond dispute is the necessity for a sound, well-drained roadbed, rail of adequate section and unquestioned integrity, sturdy and reliable rail joints and other track fastenings, sound ties, adequate ballast of good quality, light curvature, proper transition spirals, and a high degree of refinement in line, gage and cross level.

Stable Subgrade Essential

That all of these factors of an adequate track structure are within the reach of the railways to the extent of their needs is evidenced in the conditions found on many roads. As the outgrowth of the studies of soil mechanics in recent years, and, more particularly, the practical experience of United States Army engineers and specialists in the Federal Bureau of Reclamation in earth dam con-

Cannot Outstrip the Track

Experience shows that standards of construction, curvature and refinements in all phases of maintenance, must keep pace. Passenger station and fuel and water facilities must also be modernized



The Track Must Keep Pace, If Not Set the Pace

struction, practical methods of soil compaction have been developed which can produce fully seasoned railroad embankments almost from the day of their completion—the way new line embankments must be built today to permit sustained high-speed operation. This is particularly important in the light of the many federal reservoir and flood-control projects under way and contemplated over the country, involving in the aggregate several hundred miles of important tracks, and the much additional line change work that will be required in curve reduction projects.

Outstanding examples of what can be accomplished in the initial solidification of new fills are to be found on the 30-mile Shasta line diversion of the Southern Pacific in northern California,* and on the 20-mile line change of the Santa Fe around the John Martin reservoir site in Colorado. In both of these projects, subsidence in embankments was reduced to a negligible amount, not exceeding one per cent in earth fills up to 100 ft. high. In fact, in many of the fills, the density of the materials exceeds by an appreciable amount that of the same material prior to its excavation.

Surface and subdrainage methods have undergone equally as important developments during recent years as soil compaction methods. Supplemented by scientific field studies of actual subgrade conditions, the availability of pipe to meet every condition, and methods and equipment for effecting installations without disturbing the track, there are few unstable roadbed conditions due to water that cannot be remedied and with large economy over a continuance of slow orders and disproportionate expenditures for routine track maintenance.

Rail and Fastenings Must Be Adequate

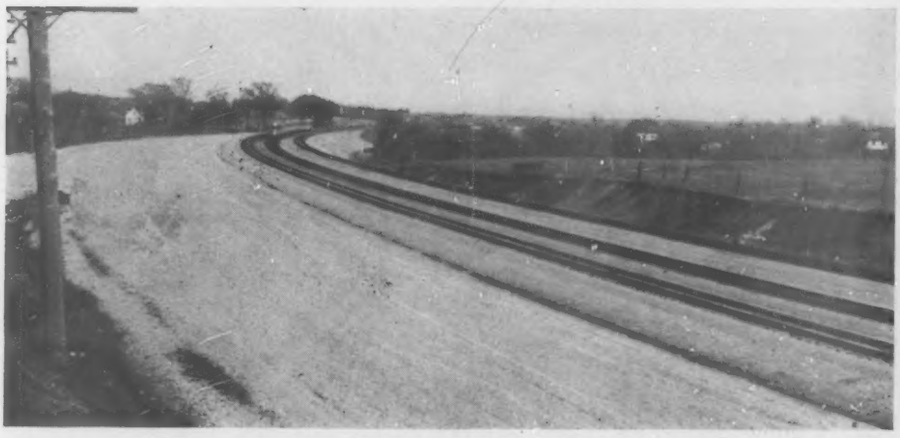
Rail, of adequate section, strength and integrity is available today to meet the needs of high-speed passenger train operation. The present sections of the American Railway Engineering Association, up to 131 lb. per yd., insure track of adequate lateral and vertical stiffness, and the marked advances in rail manufacture, now adopted generally, insure an integrity in the rail against transverse fissures and other internal defects never before attained. Even in the case of rail rolled and laid prior to the latest developments in rail manufacture, the transverse fissure detector car has been perfected to the point where, through its repeated use, the danger of accidents due to transverse fissures has been practically eliminated.

So it is with rail joints and other track fastenings, including bolts, spring washers, tie plates and anti-creepers or other track fastenings having rail-holding qualities, thorough studies made by the A. R. E. A., individual railroads and manufacturers, separately and in co-operation, the means are available for an adequate track structure. As in the case of roadbed construction, drainage and rail, therefore, it remains alone for the railways to adopt these means to the extent and degree required to keep pace with any equipment the car and locomotive manufacturers may offer, and anything the operating and mechanical departments may propose in the way of speed and shortened schedules.

Curves Must Receive Attention

Fundamental too, of course, to any such program for the track, are many other factors, including an adequate ballast section of clean, sound material; sound treated ties to insure maximum service life, with minimum disturbance of the track due to renewals; curve reduction to permit high speeds with safety; and the spiralling of all curves to cause minimum disturbance of the

* The grading operations on this project were described in the issue of June 21.



A Number of Roads Are Reducing Curves to a Maximum of 1 Deg., Permitting Speeds in Excess of 100 M. P. H.

equilibrium of trains in passing from tangent track to curves and vice versa. With regards to curves, many roads inaugurating high-speed train operation have found it desirable to go much further than was first thought necessary or warranted in order to remove speed restrictions from their schedules. With so much of this class of work still to be done, the problem involved is one of great selectivity, either to remove first the points of greatest restriction, or to carry the work forward progressively between specific points to increase the distance over which speeds can be maintained at a uniformly high level. In this work, road after road has inaugurated programs of curve reduction, in many cases limiting curvature to 1 deg., with maximum superelevation of 5 in., permitting speeds in excess of 100 m. p. h.

Outstanding in this regard is the work of the Santa Fe, which, during the last few years, has carried out extensive programs of curve reduction to improve the operating characteristics of its line between Chicago and Los Angeles, Cal., for its growing fleet of streamlined trains. Some of the latest work of this character on this road has been on its Illinois and Missouri divisions, where, up to recently, 71 curves were treated, eliminating 11 entirely and reducing the curvature of the remainder to a maximum of 1 deg. 30 min. This work has not only had a marked effect on the road's streamliner operation east of Kansas City, Mo., but has also been highly beneficial to its other passenger schedules and to freight schedules as well.

Other Factors of Importance

Where dependable high-speed train schedules are to be maintained, it is equally important that maximum protection be afforded the roadway, track and bridge structures against floods, slides and washouts. Here again, the means are available, as road after road has effected line changes to safer ground and has strengthened miles of lines and bridges with a wide variety of stream erosion control and embankment protection devices.

At the same time, to insure the greatest safety of train operation in areas subject to periodic floods, slides or rock falls, a number of roads are making increasing and effective use of a variety of slide detection fences and of flood warning devices on bridges and at critical points along the right of way, all interlocked electrically with the track signal system to warn trains of hazards or potentially dangerous conditions ahead. Too, not overlooking the threat of delays and tie-ups due to winter storms, roads modernizing their passenger service have been giving increased attention to terminal snow-fighting equipment, recognizing that delays at terminals through blocked or otherwise inoperative switches are just as serious in disrupting schedules as delays out on the line. To this end, the railways today have available to them a larger assortment of dependable equipment and devices than ever before, from the fixed, scientifically-designed, self-contained oil burner, to complete systems of electric, gas and oil-burning snow melters.

Along with all of these factors relating to fixed property in the interest of keeping pace with passenger train operation, there are still many others. For example, roadside and cab signaling must be provided or adjusted to meet the new operating conditions, and is of such importance that it is covered in a separate article in this issue. The passing siding, as regards location, length and condition, has assumed largely increased importance, especially in single-track territory equipped with centralized traffic control, because high-speed, short-schedule operation demands that meet and passing operations be executed without stopping the faster passenger trains, and without delaying freight and other passenger trains unnecessarily, if at all.

To this same end, power-operated, remotely-controlled switches and spring switches are being installed at the ends of passing sidings in conjunction with longer turnouts, to obviate the necessity for stopping upon entering and leaving these sidings, and to permit faster movement from and to the main track. High-speed turnouts are

High-Speed Turnouts Have Minimized Otherwise Serious Speed Restrictions on the Routes of Many Streamlined Trains

now available and are being adopted for installation at the ends of double track and other points of diversion, these turnouts, with long leads, minimum angle of diversion, long curved switch points and frequently, with other special features of construction, permitting facing point movements up to 55 to 60 m.p.h. with safety, and without discomfort to passengers.

Still other features of track construction and layout that are being adopted by a number of roads in the interest of the smooth operation and safety of high-speed trains are the elimination of facing point switches in double-track territory and the removal of turnouts from curves. At points where these measures appear to be impracticable, because of local conditions, these roads are installing switch-point locks to insure that the switch points are fully closed and locked when set for main-line operation. As a matter of fact, in the interest of safety, the use of switch-point locks is gaining wide acceptance for all high-speed main line switches, especially at critical points and at or in the vicinity of highway crossings, largely as a precaution against the opening of the switch points in the event of damage to the switch stand through any cause.

Water and Fuel Stations Must Keep Pace

Like the roadway and track, every other part of the fixed properties of the railways having a bearing upon train operation must be given consideration in the light of the special requirements of modern passenger train service. Thus, dependable and properly located fuel and water stations come prominently into the picture so as not to offset improvements effected elsewhere in shortening schedules. The modern steam locomotives assigned to the most important passenger trains, with their high boiler pressures and large-capacity tanks and tenders, not to mention their intensive use over engine districts doubled and tripled in length as compared with only a few years ago, are requiring the complete realinement of water and fueling points on many roads, enlarging the supplies at many locations and diminishing those at intermediate points by-passed under the new schedules.

At the same time, the dependability and quality of water supplies have assumed greater importance, leading many roads to the development of new sources of supply, the installation of more dependable pumping equipment of adequate capacity, and the more scientific treatment of those waters available to minimize boiler maintenance and repair, and to reduce operating difficulties. And to these problems have been added that of faster delivery of both fuel and water, especially water, because with present engine tanks of 20,000 to 22,000 gal. capacity and larger, it is obvious that the delivery rates of 1,500 to 2,500 gal. per min. considered adequate only a few years ago, would cause intolerable delays under present-day operation.

Today, to meet the demand for shorter schedules, refueling and watering must be accomplished in a minimum of time, preferably simultaneously, and at regularly scheduled station stops while passengers are leaving and boarding trains and while other essential station work is being carried out. With this in mind, roads are combining water, sand and fueling facilities at many points, and water delivery is now being stepped up to 4,000 to 5,000 gal. per min., with still higher rates desirable and being sought through the development of proper equipment.

Contrary to the general belief, the high-speed Diesel locomotive and the extensive air conditioning of passenger train equipment have added many new problems of water and fuel supply. In the first place, water of exceptionally good quality is required for the cooling systems

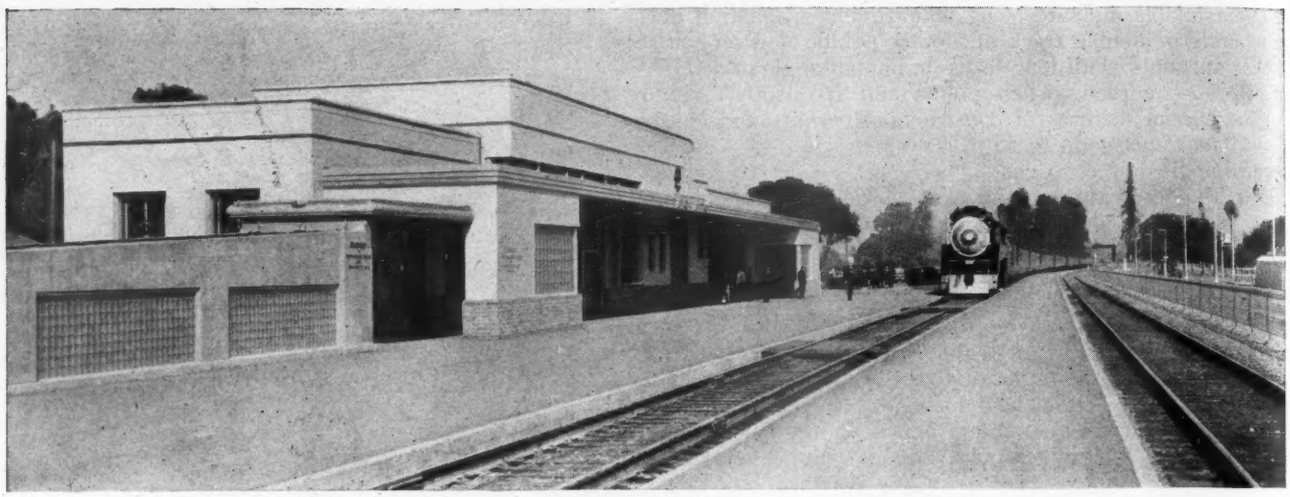
Adequate, Dependable Water Facilities, With a High Rate of Delivery, Are Essential to High-Speed, Shortened Schedules

of Diesel engines and air-conditioning generators, and, in the second place, with Diesel locomotive tanks limited to only 1,200 to 1,600 gal. capacity, they must be refilled at intervals of 300 to 400 miles, and at a high rate of delivery, especially at scheduled stops limited to 3 to 5 minutes for all station work and equipment servicing.

Added to these facilities for the road servicing of Diesel power are those facilities required at terminals for inspection, repair and refueling, especially at the quick turn-around points which are common in Diesel train operation. Road after road has faced this problem with the installation of Diesel-powered trains, and, working largely without example or precedent, a considerable variation in facilities has resulted, as might be expected. However, developments have been rapid and are continuing, a fact that is fully evident in the new Diesel servicing facilities that have been provided by the Santa Fe at Chicago, and that are now being provided on the Southern Pacific at Oakland, Cal., where the latest features in arrangement and design have been or are being incorporated to permit the most effective servicing operations, at minimum cost, and in a minimum period of time.

Stations Cannot Be Neglected

Another development of the present era of streamlined passenger train operation is the modernization of many main line passenger stations, a development which, while in no sense essential to high-speed train operation as such, is being accepted widely as essential to complete the picture of a revitalized rail transportation industry, with maximum comfort and convenience for its patrons. Streamliners or not, largely increased attention to many passenger stations is due, if not overdue, both in view of their physical condition following starvation throughout



Important Passenger Stations Must Be Put in Harmony With Modern Passenger Equipment to Complete the Picture of Revitalized Railway Passenger Service

the depression, and in view of the unfavorable light in which many of them are being placed by the modern facilities being provided by competing forms of transportation. Fortunately, as the result of new trends in home and industrial construction, the means for proper station modernization are at hand, in fact, to the point where station interiors today can be as attractively decorated, furnished and lighted as the most modern passenger equipment.

That much has already been done in this regard is attested in an already sizable number of stations, which, wholly or in part, have been modernized—in some cases with striking results and most favorable public reaction, and often with a relatively small outlay as compared with the costs that would have been involved in the construction of completely new facilities. That much additional work of this character is essential, however, is self-evident, but that this situation is now more generally recognized than ever before is evidenced by the constantly increasing number of stations that are undergoing or are being proposed for modernization, as one road after another sees the importance of this class of work as a stimulus to revived passenger business.

High Standard of Maintenance Is Fundamental

Beyond all of the already enumerated demands on different elements of the fixed properties of the railway arising out of the progress that has been made in passenger operation and service, there is another aspect of the situation confronting the maintenance forces, that is of fundamental importance, and that is the higher standard and greater degree of refinement to which all elements of the roadway, including bridges, must be maintained, to meet the requirements of uninterrupted, comfortable and safe high-speed passenger train operation. With present-day speeds up to 100 and 110 m.p.h., the extent of the increased demands on the track and structures are difficult for even many maintenance of way men to comprehend, and, quite naturally, therefore, much more difficult of comprehension by railway managements and those in the operating and mechanical departments. Only as these demands have been reflected in other than smooth and comfortable train operation at these high speeds, have the factors of increased strength, stiffness and refinement in all elements of the track, together with increased refinement in every phase of maintenance, become fully apparent, and more generally recognized.

Today, under high-speed operation, refinement in track gage, line and cross-level is demanded far beyond the conception of only six or eight years ago. Curve maintenance, in all respects, including transition spirals and super-elevation, demands special attention. Drainage of the track, to eliminate soft spots, low joints and heaving in winter, has become not only desirable but essential. Clean ballast and sound ties are required more urgently than ever before, because, without them, the task of maintaining a high degree of refinement in track alinement and surface is attained only at largely disproportionate expense, if possible at all.

High-speed operation also calls for more thorough anchorage of the rail against longitudinal movement, closer attention to all phases of joint maintenance, and constant vigilance in the maintenance of rail ends, frogs and crossings to a true running surface. In fact, all along the line, maintenance of way men have had to reorient their thinking relative to standards of maintenance, because standards considered adequate, if not high, only a few years ago, are today intolerable under present demands for speed and comfort in passenger service.

And maintenance of way and structures men in high-speed territories are having also to reorient their thinking relative to methods of carrying out their work. For these men, power tools and equipment have become even more of a necessity than otherwise to enable them to produce the standards of construction and maintenance desired with the economy that is essential. Thus, power tie tamping equipment, rail cranes, spike pullers and drivers, power wrenches, tie adzers, rail grinders, ballast cleaners, modern grading and earth-handling equipment, welding outfits, pile drivers and a wide range of power tools for use by the bridge and building forces, are being used to a greater extent today than ever before, with still further expansion in their use a certainty with the further expansion of high-speed train operation.

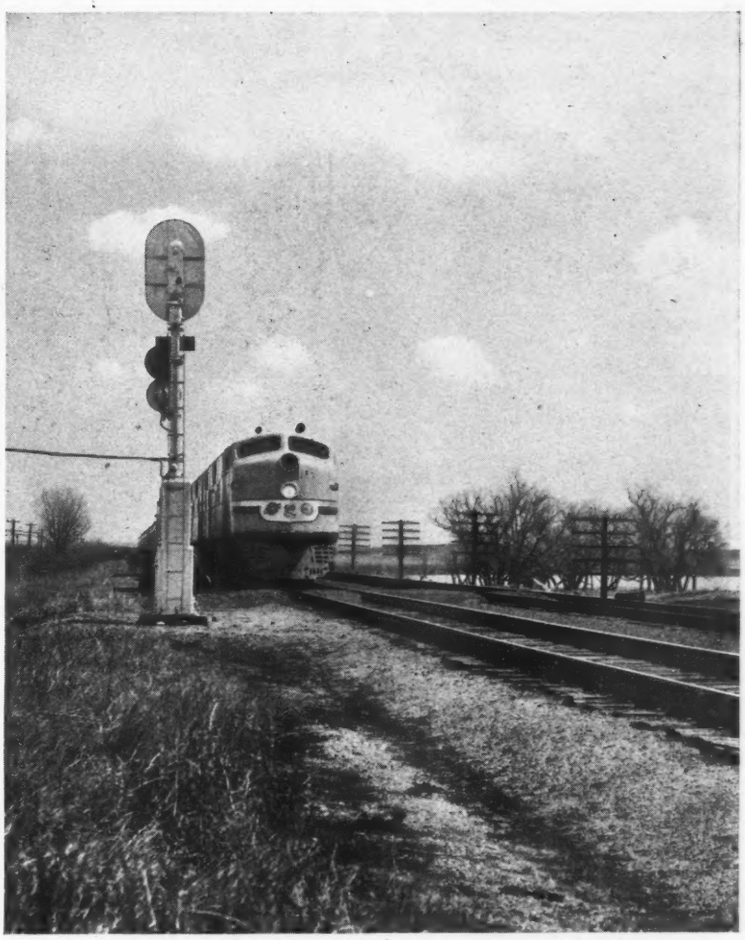
Methods Must Minimize Slow Orders

At the same time, for these forces, delays and slow orders due to work operations have become largely a thing of the past, because, obviously, it would avail a road little to achieve higher speeds and shortened schedules through improved alinement and a stronger and more refined track structure, only to have them offset

(*Continued on page 878*)

Modern Signaling Contributes to Passenger Progress

Restricted-Speed aspect in replacement of Stop-and-Proceed; Flashing-Yellow as new simplified Advance-Approach, and better crossing protection save train time



Streamliner Passenger Train on the Union Pacific Approaching Automatic Signal Displaying a Restricted-Speed Aspect Rather than the Stop-and-Proceed

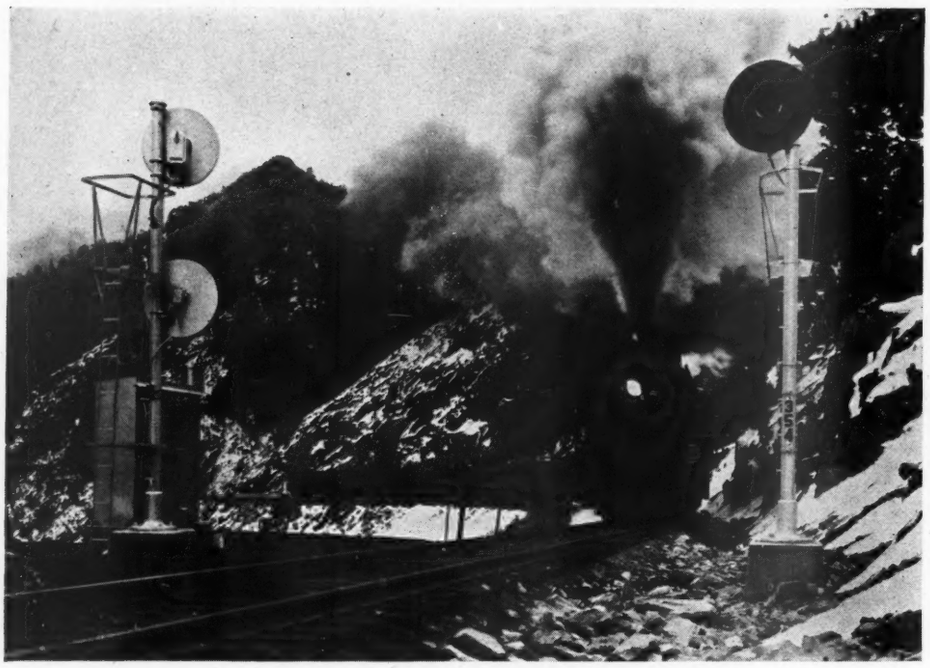
HAVING acquired modern trains with high-speed locomotives, and having reconstructed their tracks for high-speed operation, many roads, especially during the last year, now realize that modern signaling is necessary not only to insure safety, but also to utilize the new locomotives and tracks most efficiently at the speeds for which they are capable. Safety of train operation has long been recognized as paramount in the design of all signaling. The next objective is to obviate unnecessary train stops and delays, while the third, and more recently recognized factor, is to minimize the time lost when trains are required to reduce speed and again accelerate.

New and Improved Signaling

In some instances, new fast trains have been or are being placed in service on single-track lines not previously equipped with automatic block signaling. As a means of improving safety and reducing delays, these lines are being equipped with signaling as rapidly as practicable, as, for example, on several sections of the Chicago, Rock Island & Pacific, and the Louisville & Nashville. For the most part, however, the lines on which extra fast passenger trains are being installed have been equipped with automatic block signaling for years, but in order to protect and operate the new trains efficiently, much of this old signaling is being replaced or subjected to extensive changes and additions. For example, on 165 miles of double-track main line of the Chicago, Rock Island & Pacific between Blue Island, Ill. (Chicago) and Rock Island, single-direction automatic block signaling with ramp-type train control is being replaced with centralized traffic control, including continuous cab signaling, for either-direction operation on either track. Similarly, the Pennsylvania has continued its modernization program of providing modern position-light signals and of adding continuously-controlled cab signaling. Likewise in the Norfolk & Western program, the old semaphores, and the conventional track and line circuits are being completely replaced by modern position-light signals, with coded track circuits which eliminate line wire controls, and with wayside equipment included for continuous cab signaling.

These modernization programs on many roads are including the respacing of signals to provide longer blocks which are adaptable for the increased braking distances inherent in high-speed trains. Where local circumstances are such that block lengths cannot be lengthened or where operating conditions require short blocks, cer-

tain roads are installing signals with four aspects. Some roads which previously have used only the red, yellow and green aspects, have been reluctant to adopt a fourth automatic block signal aspect as provided in the Standard Code, not only because of the expense of adding a second lamp unit, but also for fear that a multiplicity of aspects, each including two lamps of different colors, may cause hesitancy and confusion in the minds of enginemen if they are required to grasp quickly the difference, as, for example, between red-over-green as compared with green-over-red. A simple solution for this problem, that was developed and placed in service recently on 60 signals on the Illinois Central, is to flash the yellow lamp as a fourth aspect, the flashing yellow being used as the Advance-Approach aspect in conjunction with the previous single-light standard aspects of steady-burning red, yellow and green.



Westbound Exposition Flyer on the Denver & Salt Lake Approaching An Automatic Signal With a Directional Grade Marker

Restricted Speed Rather Than Stop-and-Proceed

Another means of saving train time is to omit unnecessary stops. For many years numerous roads have recognized the delays incurred when trains stop at automatic block signals to observe the Code Rule 291 indication, stop-and-then-proceed at restricted speed. At signals on heavy ascending grades, various roads have for years provided markers which authorize tonnage trains to pass such signals without stopping, and then proceed at restricted speed. Some roads, such as the Illinois Central, have made this rule effective at all automatic block signals. A new development, however, within the last year is an arrangement of aspects on the Union Pacific which does not include a Stop-and-Proceed aspect, but does include a Restrictive Speed aspect. Some territories have already been equipped and these new signals are to be applied on all ascending grades exceeding 0.5 per cent. The aspects apply, of course, to passenger as well as freight trains. A second road, during the past year, made an installation, using signals of the same general character, but in this instance the Restricted Speed aspect is applied throughout, regardless of grades. In each instance, as, for example, where a train is just getting into a siding as a passenger train is approaching, the use of the Restricted Speed aspect rather than the Stop-and-Proceed aspect saves from three to seven minutes or more, depending on the weights of the trains, the rates of acceleration and the grades.

Another signal problem has been introduced on many roads by the installation of high-speed turnouts and crossovers, as well as by equilateral turnouts at the ends of double track, in interlockings which also include crossovers good for only 20 m. p. h.. Depending on the weights and speeds of trains, as well as the grades, a new crossover good for 50 m. p. h., as compared with a previous limit of 20 m. p. h., may permit a saving of as much as 4 to 6 min. in train time, but the important point is that this saving cannot be permitted with safety unless proper signaling is provided to direct the train movements at the increased speeds. As a part of the track improvements, new signal aspects are provided to bring trains up to and through the new track layouts at the speeds for which they were designed, rather than necessitating unnecessary speed reductions that would be required if the previous arrangement of aspects were continued in service. For example, at an interlocking where a yellow aspect has governed to one or more diverging routes over 20-m. p. h. turnouts or crossovers, when a high-speed crossover is installed, changes must be made to provide the red-over-green, Medium-Clear aspect on the home signal to govern routes via the new high-speed track facilities. Furthermore, an additional aspect, the yellow-over-green, Approach-Medium aspect is required at the distant signal so that enginemen will be informed to bring their trains up to the home signal at medium speed rather than reducing to medium speed at the distant signal, as would be the case if only the Approach aspect were available for this use at the distant signal. Additions and changes of this nature have been made at numerous interlockings during the last year.

Still another means of saving train time is to utilize quickly-operated interlockings. For example, at Dunkirk, N. Y., on the New York Central, a former individual lever-type interlocking is being replaced with mod-

ern entrance-exit or route-control systems, by means of which the switches for an entire route are lined and the signal cleared by the operation of two buttons on a panel. A change in lineup requires from three to five seconds, as compared with perhaps several minutes with the previous forms of lever interlocking. The saving in train stops and delays when train movements on various routes are numerous, is obvious. At some conventional lever-type power interlockings, changes have been made to permit full-stroke operation of each switch lever with one motion, rather than waiting until the switch operates and indicates. At large plants, this change permits a saving of a few seconds for each switch lever, and may total as much as 10 to 30 seconds, depending on the number of levers involved when making a change in lineup. At numerous interlockings, semaphores are being replaced by light signals, one reason being to effect instantaneous change of aspects rather than waiting several seconds for a motor to operate a semaphore blade from one position to another.

The previous discussions have each dealt with means for saving a few minutes train time, but the major losses of train time are caused by the antiquated practice of authorizing train movements by time-table and train orders as compared with modern centralized traffic control.

In brief, the use of centralized traffic control, including semi-automatic signals for authorizing train movements, will save an average of at least one minute for each train for every mile. In contrast with the total of approximately 1,800 miles of line that were equipped with C. T. C. during the 15 years up to January 1, 1941, the projects completed since that time, together with those under way and now authorized, will total nearly 1,000 miles, which is evidence of the rapidity with which C. T. C. is being extended.

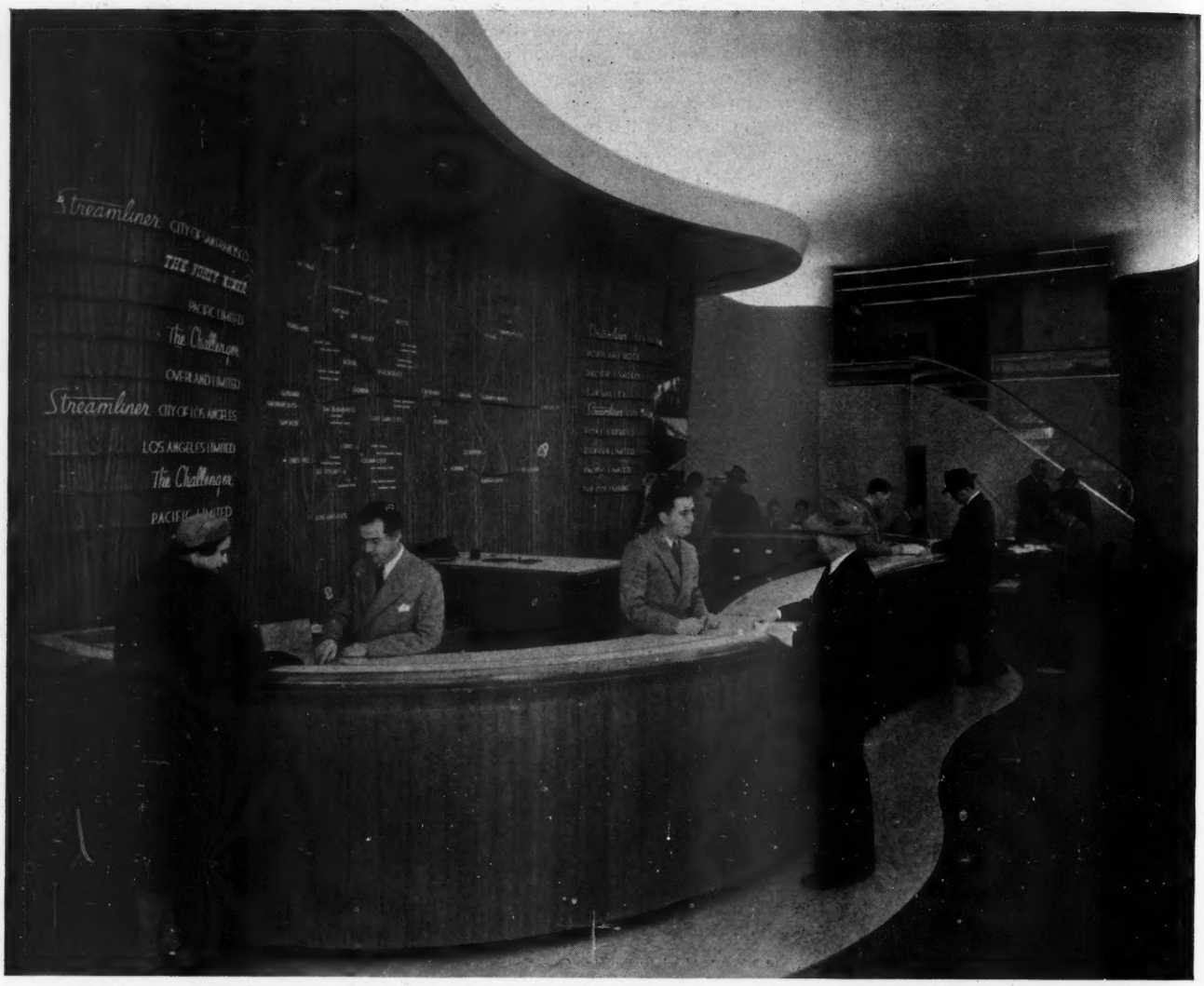
An important development during the last year, as evidenced on projects installed by the Norfolk & Western, is that the major benefits of train operation can be secured with reductions in total cost by selecting equipment for switch operation in accordance with the service required at the specified point, as, for example, using power switch machines, spring switch mechanisms or ordinary hand-throw switch stands, depending on the character and extent of use of a switch.

New Crossing Protection Obviates Speed Restrictions

In numerous towns and small cities, local ordinances have long specified speed reductions of trains in areas including certain street crossings. At such places, improved safety for street traffic as well as savings in train times can now be effected by modern crossing protection. For example, at Lincoln, Ill., the city and state authorities co-operated with the Alton in authorizing a program to close certain crossings and equip the remainder with modern flashing-light signals and gates. A similar program that was completed recently in Rock Island, Ill., and Moline, included modern protection at 38 crossings, with the closing of 11 crossings to all traffic, the closing of one other crossing to vehicular traffic, and converting one crossing for private access only. Programs of this nature not only provide improved protection at all of the crossings involved (that is, service 24 hr. daily), but the improved protection also permits increased train speeds with safety. Based on an example of a typical light-weight modern train operated normally at 85 m.p.h. on level track, if the speed is reduced to only 50 m.p.h. as compared with 20 m.p.h. through a 1,000-ft. territory, a saving of 4 min. 14 sec. in time is effected.

The railroads are finding in modern signal aspects, centralized traffic control and crossing protection the means by which the new high-speed passenger trains can be kept moving with safety at the speeds for which they are capable.

On the Illinois Central the Fourth Aspect, Advance Approach, Is Accomplished by Flashing the Yellow Light



The Modern Ticket Office Has an Excellent Psychological Effect on the Salesman as Well as the Customer

Publicity and Sales Efforts More Vital Now Than Ever

IN previous Passenger Progress issues, the *Railway Age* has emphasized the necessity of more widespread promotional efforts to acquaint the traveling public with the fine passenger service that is now available on most of the railways. This was true previously; it is more than ever true today. Unless the railways are prepared to risk losing much of the money, time and brain power expended in improving their passenger service since 1934, sales efforts and promotion must be augmented. In its way, passenger service is highly important to national defense—it should not be subordinated. If the railways are looking for any satisfactory percentage of passenger traffic after the present emergency passes, the passenger must be sold *now*—on railway travel.

Two distinct avenues of sales approach are necessary. Advertising and publicity may be grouped under the first as promotional efforts. Second, and equally important, is the proper training and equipping of the passenger sales staff. It was only with the advent of competition by other means of transportation that the need for modern merchandising methods became apparent in the railway industry. That need has, however, grown to large proportions and has never been greater than it is today. With all due respect to the qualities of rate clerks and stenographers, the mere change of title to city passenger agent does not magically transform them into salesmen. The vigorous sales policies of the competitors of the railways must be met in kind.

What Has Been Done

A start has been made in the direction of broader publicity and better sales methods in marketing passenger service throughout the country. The railways have accomplished much—perhaps not all they might have, but still a great deal—in selling people, who formerly went to Europe periodically, on the desirability of travel in

their own country. So far as freight transportation is concerned, they have done a good job in publicizing their ability to handle the load of national defense transportation. Unfortunately, few efforts are discernible toward acquainting the public with the necessity and value of railway passenger traffic in the present emergency. In fact, in some important instances, appropriations for advertising and publicity have been drastically curtailed.

Our national defense effort requires both labor-materials and brains. The transportation of the "brains" from place to place as needed, is quite as important in its way as the transportation of materials. The subordination and "sovietizing" of railway passenger service during World War No. 1 was largely responsible for the decline that set in shortly thereafter and persisted until the streamliners supplied the "shot-in-the-arm" in 1934.

It is not within the province of an issue of this sort to go into a technical discussion of rates, even though considerations of properly pricing the "merchandise"—railway passenger travel—may well be urged upon railway officers as a valuable adjunct and support of sales methods. One thing of encouragement along these lines should be mentioned, and that is the continuation of the "Grand Circle" fares. These were first established in 1939 to promote interest in trans-continental travel, with the New York and San Francisco fairs as tourist magnets. They were continued through 1940, and extended to October 31, 1941. They have now been extended indefinitely, because, to quote President J. J. Pelley, of the A. A. R., "they have met with great success and have made it possible for many people to go long distances who might not otherwise have been able to afford it."

The romance inherent in trains is still a fertile field for railway publicity. Elaborate christening and other ceremonies in connection with the inauguration of new trains this year have proved as popular as ever and the number of people inspecting the trains on exhibition tours has shown no signs of diminishing. When the Tennessean was exhibited for a few hours at Glade Springs, Va., (a town of 669 persons) on May 13, a total of 1,673 people passed through the train. What is true of small towns is equally true of big cities; people will still come in large numbers to see a new train, and the advertising and publicity value of this is enormous. Such other occasions as, for example, the Los Angeles Chamber of Commerce luncheon celebrating 10,000,000 miles of Santa Fe streamliner operation are also valuable.

The christening ceremonies this year have had excellent results from a publicity standpoint. When the Southerner was christened in New Orleans by this year's Mardi Gras queen, the governors of all of the southeastern states were in attendance. Effective publicity was also obtained in "launching" the Chicago-Florida streamliner service; the Jeffersonians between New York and St. Louis; and the James Whitcomb Riley between Cincinnati and Chicago. The Delta Eagle's tour attracted not only a large number of prospective passengers, but also a large percentage of the important shippers in the territory as well. As a matter of fact, practically all of the trains introduced during the early part of the year were exploited intelligently so that their full publicity value might be obtained. "Broadway Limited," a motion picture featuring the Pennsylvania's extra-fare streamliner between New York and Chicago, is having a nation-wide showing. Much of the action of the film takes place on board the Broadway—photographed both along the actual right-of-way and using replicas of interiors and exteriors on Hollywood studio property.

The D. & R. G. W., in choosing the particularly appropriate name of "Prospector" for its trains, has carried out this theme throughout. The "Old West" idea has provided the background for some unusually striking art work in the advertising for these trains. In addition, the D. & R. G. W. sent a picturesque character East in prospector's costume and the metropolitan papers carried many columns about him and, of course, about the trains as well.

The "keel-laying" of the new Empire State Expresses attracted much attention and comment. Further interest was created by a contest among high-school students to select the names of former governors of New York for the cars making up the train, in which 100 prizes will be offered, all of which will include rides on the new trains.

During the earlier part of the year, also, the car manufacturers supported their finished products by intelligent, attractive advertising of their trains. This sup-

Christening Ceremonies of New Trains Attracted Much Attention This Year (Above)

The New Streamlined Trains Still Attract Crowds of Spectators (Right)

Modern Advertising Light Effects Characterize the New Ticket Offices

plementary advertising was particularly valuable in further educating the public.

General Publicity

Individually, a number of the railways have been doing good jobs in sales promotion of their passenger service and in general publicity. Starting in staid and conservative New England, the Boston & Maine might be cited for its sales job. During the year, articles on the progressiveness of "The Bustling & Modern" have appeared in Forbes and in Readers Digest. In addition, Printers' Ink Monthly, a leading business paper in the advertising field, made complimentary reference to the B. & M. policies in this regard.

Characterizing as "daring" the five-man committee on the road which initiates and supervises all advertising policies, when examined "from the usual conservative viewpoint of the majority of the country's railroads," the magazine points out that the staff of the advertising agency which handles B. & M. advertising has access to railroad files, statistics and other data. In addition, agency personnel make it a point each month to visit at least one department head or junior executive of the line to talk informally about various matters concerning his department. Out of these talks have come the suggestions that make the railroad's "copy" sharp and interesting.

Interviewed on the policies of the road with respect to advertising, President E. S. French told "Printers' Ink" in part:

"We have been told that our copy is 'daring' but we believe it is simply modern and in trend with the times. We have been helped tremendously by the friendly attitude of our customers and the widespread interest of our employees. Their constant assistance in suggesting ideas and making criticisms suggests ways in which we can improve our service and adopt new themes in advertisements and merchandising efforts that are timely. We have tried to 'humanize' our copy—to get some humor into it—as we believe that nothing is better than a good laugh; and our patrons, for the most part, laugh *with* us. It is a healthy experience in public relations when the majority of your patrons feel that they are a part of your business. Such a position has a healthy effect on honesty in advertising."

The advertising of the Frisco has also been highly unusual this year. A "Travelog" was sent to 75,000 prospective vacationists, and this 12-page Gravure pictorial was printed in pine-scented ink to remind the recipient of the woods and forests. Another piece of literature, mailed to arrive on Friday, the 13th, had a miniature horseshoe attached. A chain and an American flag attached to other folders also symbolized special ocacsions. The B. & O. issues pictorial and historical maps of its line between Washington and New York as attractive table covers in its lounge and dining cars. The Wabash continues its successful series of comic-strip type advertisements, and "Chessie" and family, the familiar cats of the C. & O. continues to attract nationwide attention.

The N. Y. O. & W. created much interest by means of a beauty contest among the female vacationers using its trains to resorts in the Catskills. The New Haven issued strikingly-colored, vest-pocket timetables covering many sections of its line. The N. Y. C. organized a motion picture bureau last January which will have charge of the distribution of the many films advertising its passenger service and also of public relations films. The Santa Fe presented an elaborate miniature railway to the Museum of Science and Industry at Chicago to stimulate interest in railroading.

All of these are straws that show which way the wind has begun blowing, although the railways' attitude toward publicity and advertising still has a long way to go before approximating that of other U. S. industries. No railway attempts anything like the widespread and consistent advertising programs of other commercial enterprises. In the last four years, however, the Pullman Company has spent over 2½ million dollars in ad-

vertising, which, while directed at selling Pullman accommodations, naturally also advertises and promotes first-class rail service to the American public. In 1941, this advertising was doubled and advertisements in 17 outstanding publications reached a combined magazine circulation of 25 million people; with over 187,000,000 separate insertions and half-a-billion reader impressions.

"Dressing the Show Window"

The show window of the railways is in their ticket offices. The first of the modernized ticket offices made its appearance a few years ago and the movement has gained impetus during the last year. The importance of presenting an attractive front to the public cannot be minimized. The psychological effect is apparent, not only on the customers, but also on the ticket sellers. Many of these men were veterans of the many years of public apathy to railway travel and had become discouraged or slipshod in their work. The uplift given by new, bright surroundings, as well as modern service, has had a noticeable effect on these men.

Examples of the new offices are numerous. The Union Pacific has installed several. The Pennsylvania opened two of the most striking city ticket offices in the country, at Chicago and Boston, during the year. These modernistic offices contain many innovations for the comfort and convenience of the prospective customer, including "visual timetables." These consist of large wall maps, on which the departure times and routes of all trains are flashed automatically in rotation.

The N. Y. C. has established an air-conditioned, fluorescent-lighted travel bureau in Grand Central terminal, New York, for the convenience of its passengers. The Great Northern has adorned its ticket offices with striking murals depicting scenes in Glacier Park. The Burlington has opened a modern "travel shop" in Chicago and this, as certain smaller offices elsewhere, is architecturally arranged to suggest the streamlined construction of the Zephyrs. The Consolidated ticket office in Chicago has been completely remodeled and modernized in the streamlined mode. The Northern Pacific has installed striking offices at various points. These are but a few examples of the rapid change—for the better—that is taking place in the design and construction of city ticket offices.

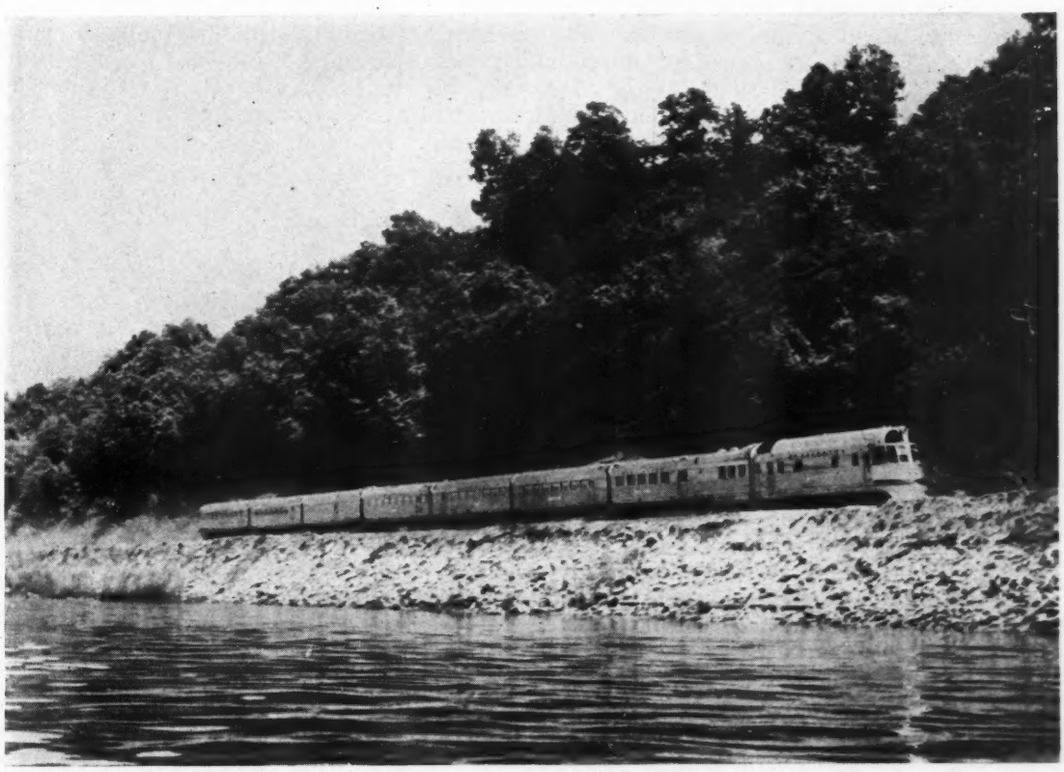
Improved services of all sorts are also being offered on a much more widespread basis than heretofore. So much time, thought and money have been expended on service improvements recently that care must be taken to see that they are continued. The trains of the country are full once again, but, unfortunately, the service to these new railway patrons is not yet always what it should be. This is particularly true of dining cars, where the draft and the defense industries have made inroads into the crews.

Obvious difficulties present themselves in attempts to educate train crews and other employees in creating an atmosphere of friendliness and courtesy, but such efforts must be persisted in, regardless of initial discouraging results.

The lighting of coaches, both new and modernized, has been an outstanding service improvement this year and one that has aided in selling the service. Fluorescent and individual lights have been installed in many cars. This, together with reclining seats and ticket pouching arrangements so that the passenger is not disturbed by the new conductor at each division point, have been outstanding factors in selling coach service for all-night or longer rides.

Special Trips Aid Sales

The railways are continuing the running of special trains designed to attract devotees of various sports, etc. These are proving excellent revenue producers of themselves; they also serve to acquaint the younger generation with railway service. On the other hand, defense



Speed Is a Potent Sales Force — This Zephyr Averages 71.2 M. P. H.

activities and the dangers of possible sabotage are curtailing railway fan trips, particularly so far as the inspection of shops, enginehouses, etc., is concerned. There are, however, still a variety of trips available for these ardent enthusiasts and they are taking advantage of them in large numbers. An example of such a trip is the popular "Off-the-Beaten-Track Excursion," which was offered regularly by the Pennsylvania last summer. This included travel over the main line from Philadelphia to Baltimore, thence over the Maryland & Pennsylvania via York to the electrified freight line from Columbia to Lancaster, and return to Philadelphia over the main line.

As usual, the Boston & Maine ski excursions have been extremely popular, but these are now so well-established as to be routine. The New Haven, which has been markedly successful in such excursions, augmented materially the ski trains operated to New Hampshire and Vermont last winter in connection with northern lines. This road operated the first "skate" train from New York to Woodrow, Conn., on January 25. It also reintroduced the former, popular, rail-boat, triangle tours between Boston, New York and Albany and special "opera-lover" trains between Connecticut and New York during the season.

The "ski-camera" trips of the Lackawanna were successful and the N. Y. C. operated snow trains to 30 points on week-ends during the last season. The Long Island organized a successful series of golf outings to famous courses on an all-expense basis, round-trip fare, lunch and green fees being included for $3.

The Travel-on-Credit plan has shown steady increases this year over last in the number of people taking advantage of this type of service. The percentage as to numbers of people using it and the total sums advanced have increased steadily. Similarly, the Train-Auto service has been successful in 1941 and more people are using the service every month as it becomes better known. This service is valuable in that, almost invariably, the passenger using it would have driven his own car on the trip, if automobiles had not been so readily available at destination points.

Basically, all these things possess sound sales psychology. There is no reason for discontinuing them because of "emergency" conditions, or for cutting advertising and publicity budgets. Rather, with impending competition in mind, sales and service efforts should be redoubled, to keep the passenger rail-minded.

Passenger Progress Cannot Outstrip the Track

(*Continued from page 870*)

by methods of conducting work which obstruct the track, efficient as these methods may be in every other respect. Thus, to a large extent, methods are changing with standards; track work is being scheduled to clear important trains; run-offs in surfacing operations are being extended and tamped up solidly to permit the highest possible speed with safety; and bridge repairs, to a larger extent than ever before, are being completed between trains or accomplished with the aid of falsework that will permit unrestricted train operation.

Considerable re-routing of trains around work operations is still practiced where double or multiple tracks with high-speed crossovers make this feasible, but there is even a definite trend against this practice on the routes of many streamliners, some roads giving these trains rights over all classes of work, unless of an emergency nature involving a hazard to operation. Even shoofly tracks, where essential, are receiving increased attention under the urgency of modern operation, these tracks, in many instances, being built to standards that would have been thought wasteful only a few years ago, in the interest of minimum speed restrictions. Some roads are building all of their shoofly tracks to permit speeds up to 40 and 50 m. p. h., and at least one road insists that all shooflies be built and maintained to such a standard that they present no speed restrictions whatever.

In the face of all of these new conditions, there is a marked trend toward the use of off-track work equipment of practically all types, both in the interest of safety and in the interest of maximum work production. In some cases, greater portability of on-track equipment is accomplishing much the same results, minimizing or preventing delays to the work while moving clear of trains, but the trend is definitely toward keeping the track free of work equipment to the greatest extent possible. This, in turn, is obviating the need of many work trains, especially through the use of off-track cranes, pile drivers and ditching and grading equipment, a factor which, entirely aside from its favorable effect in minimizing interference with revenue train operation, is effecting outstanding economies in maintenance operations.

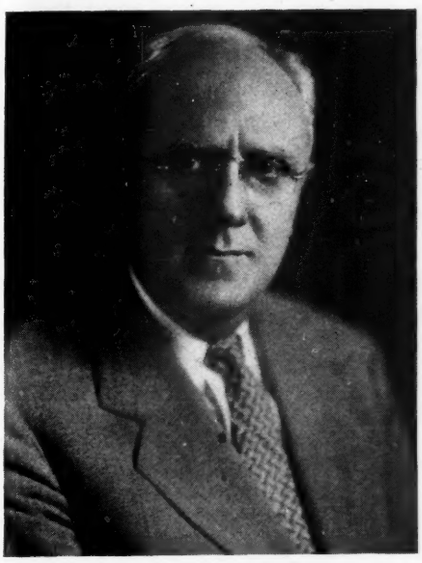
Must Keep Pace

Just as definitely as the automobile has replaced the horse and buggy, lightweight, high-speed steam and Diesel trains are replacing standard passenger equipment of only a few years ago. With such an equipment outlook, and the trend toward shortened schedules through both higher maximum speeds and higher average sustained speeds, the track structure must keep pace. As already pointed out, the means are available in materials and methods, and await only wider adoption to make modern train operation as to speed and comfort, truly streamlined. That much has already been done and is continuing to be done in this regard is evidenced on the well-established routes of many of the country's outstanding streamlined trains, but that much still remains to be done is just as evident in the routes of other so-called streamliners, and in the fact that new high-speed routes are being opened up and extended almost daily.

To the extent that increased earnings and more liberal allowances will be of assistance to the maintenance forces in bringing their tracks up to the standard required, these forces will have an important ally in the months ahead. However, recognizing the uncertainty of this ally, it should be made the most of while at hand, with due regard, of course, to needs and strictest economy, because long after it has deserted maintenance men, they will be called upon to carry on to still higher standards in the interest of passenger progress, and may well succeed or fail depending upon the extent that the tracks keep pace with the heavy demands of the present time.

A DOG WHICH DISTINGUISHES westbound freights from eastbound and passenger trains and local freights from through freights is the valuable assistant of a New York Central towerman at Wellington, Ohio, according to the "Central Headlight." Part of his master's duties is to pick up copies of consists thrown from *westbound* through freights, and "Stuffy"—a cocker spaniel—does the job for him. The odd thing is that the dog pays absolutely no attention to eastbound freights, or passenger trains and local trains in any direction. It is reported that trainmen on "exempt" trains have tested his distinguishing abilities at times by throwing off fake consists, but he will not be fooled.

Passenger Officers Meet in Del Monte



Robert Thomson

Consider problems now confronting the railways in preparing to meet future competition

J. V. Lanigan

MORE than 100 members, from railways in all parts of the United States, as well as in Canada and Mexico, attended the annual meeting of the American Association of Passenger Traffic Officers at the Del Monte Hotel, Del Monte, Cal., on November 11-13. At the opening session on Tuesday evening, President Robert Thomson, passenger traffic manager of the Chicago & North Western, stressed the seriousness of the problems confronting passenger traffic officers at this time, and this was the keynote of the meeting and of the extended and animated discussions.

Addresses were presented by Stuart Daggett, professor of transportation at the University of California, on the post-war effect on rail passenger transportation; by George C. Paterson, assistant to vice-president, operations, Southern Pacific, on personalizing rail passenger transportation; by H. W. Siddall, chairman, Trans-Continental Passenger Association, on the handling of military traffic; by Don Gilman, vice-president, National Broadcasting Company, on the use of radio in selling passenger traffic; and by Sherman K. Burke, assistant vice-president, Southern Pacific, who read an address prepared by J. T. Saunders, vice-president, system freight traffic, Southern Pacific, who was unable to be present.

In the business session, J. V. Lanigan, passenger traffic manager of the Illinois Central, was elected president of the association for the coming year. H. F. McCarthy, passenger traffic manager of the Boston & Maine, was elected vice-president to succeed Mr. Lanigan, and E. E. Nelson, passenger traffic manager of the Northern Pacific, was elected chairman of the executive committee. B. D. Branch, general passenger agent of the Central of New Jersey, was re-elected secretary-treasurer.

Influence of Passenger Service on Freight Traffic

In an attempt to evaluate the importance of passenger traffic to the railways, Mr. Saunders presented the results of a survey that he had made among the members of his own (Southern Pacific) traffic department and also member shippers. In presenting this survey, Mr. Saunders characterized freight traffic as wholesale and passenger traffic as retail business. The passenger revenues of the Southern Pacific, he continued, approximated $24,500,000 in 1940, whereas the nine biggest shippers on this line paid more than that in freight charges. An analysis on one railroad shows that 10 companies provided 20 per cent of the freight revenues; 120 companies, 70 per cent; and 302 companies, 80 per cent. This condition of control of the bulk of freight revenues in a few hands is our first challenge in attempting to analyze the influence of passenger service on freight traffic.

In accepting this challenge, the S. P. determined to find out the attitude of the sellers of transportation—the railway traffic officers—and of the buyers of transportation—the industrial traffic managers. Each traffic officer on the Southern Pacific was questioned, and, generally speaking, it was found that the railway traffic officers, whether freight, passenger, or joint freight and passenger, feel that the influence of passenger service on freight traffic

is an important factor; while a large number of the officers consider the influence as a major factor. In fact, 84 per cent of those questioned feel that the influence is either a major or an important factor.

It is highly significant that no railroad traffic officer said that the influence of passenger service on freight traffic was of no importance, when considered in the light of the opinions expressed by the industrial traffic managers. The opinions of the railway officers are entitled to great weight, as the expressions of those who are selling transportation daily. There is a striking unanimity of opinion upon the question in both divisions of our traffic service—by traffic officers on-line and by traffic officers off-line. Throughout the comments of the railway officers runs the thread of emphasis upon the value of good service as a breeder of good-will.

What does the freight shipper think about the influence of passenger service on freight traffic? To find out the S. P. asked 145 important traffic managers throughout the United States and got answers from 120. Although the questionnaire was in a form on which the answer could be checked, many of them expressed their opinions in great detail. Taking both sides of the question, the vice-president of one of the largest steel companies is of the firm opinion that a traveler furnished with first-class equipment and, above everything else, courteous treatment, is left with an impression that is an influencing factor in the routing of traffic and that this can only be done by using the passenger service and obtaining an impression of the railroad, its territory and its personnel. Conversely, the traffic manager of a national company whose product is sold in every city and town in the country rates the influence as of little importance, commenting that much passenger service is unprofitable and that the freight business must pay for it at the shipper's expense in higher freight rates.

Summarizing the results, 14 industrial traffic managers, or 12 per cent, said that the influence of passenger service on freight traffic was a major factor; 28, or 23 per cent, said it was an important factor; 29, or 24 per cent, said it was of some importance; 29, or 24 per cent, said it was not of much importance; and 20, or 17 per cent, said it was of no importance. This immediately challenges attention, because these industrial traffic managers consider the influence of passenger service on freight traffic is of considerably less importance than it is held to be by the railway traffic officers. In further evidence to support this conclusion, Mr. Saunders estimated the annual freight bills of 45 of the industrial traffic managers questioned, and found that those representing 4 per cent of the total freight bill of the group considered passenger service a major factor; those with 19 per cent of the total considered it important; those with 10 per cent considered it of some importance; those with 20 per cent considered it of not much importance; and those with 47 per cent, or almost half of the total freight bill, reported the influence of no importance. This substantiates the thesis that the industrial traffic manager buys freight service on the basis of cost and quality and that, in such purchases, the influence of passenger service as a determining factor is not of much importance.

While admitting that it would not be fair to dispose of the attitude of industrial traffic managers upon the basis of these samples of opinion alone, Mr. Saunders further cited examples of railways, or important segments of railways, upon which no passenger service, or inferior service, is offered, which get their share and more of the freight traffic. He also carried his inquiries further by asking non-shippers and commercial truck line officers as to their opinion. These, generally speaking, agreed that passenger service had little influence in the routing of freight. Mr. Saunders then continued:

"The similarity of opinion in all these classes justifies the general conclusion that the great bulk of freight traffic is routed independently of, and without consideration for passenger service. However, where the railroad freight shipper uses railroad passenger service, the service he gets is an important factor in his relations with the carrier. Of course, our 'Daylights' and our 'Lark' have been builders of friends for our railway and there are a host of comparable trains on other lines that have done likewise. While this does not change my belief that the great bulk of freight traffic is routed independently of considerations of passenger service, it emphasizes the necessity that, so long as we continue to have passenger service, the quality of that service, as provided to our shippers, is of real importance."

What of the Future?

Stuart Daggett, professor of transportation, University of California, sounded a note of modest optimism with respect to the prospects for passenger traffic after the present emergency is over. He traced the history of such traffic during the period before, during and after the last war, for the purpose of drawing a parallel with present and future traffic. Without minimizing the probable air competition, he pointed out that the assumption that bombing planes will be transformed into passenger-carrying, commercial planes is erroneous, since this type of plane, because of high-landing speed and other factors, would be entirely unsuitable for commercial use. Reviewing the history of motor competition, Professor Daggett stated that indications are that there will be nothing comparable to the rapid growth of such competition that took place after the last war. There will, of course, be a replacement of the loss incurred under the present curtailed production, but no particular increase in the intensity of such competition. He said: "My principal reason for this view is that the period of extraordinary development of motor car construction in the United States is past. After the war, the advance will be at a much more moderate pace, if, indeed, it continues at all. Also, the response of the railway industry to motor competition is more vigorous and intelligent than it was in 1920. Rail traffic men should not deceive themselves, however, by believing that the large business of war will be permanent. Little reliance can be placed upon government support of any transportation policy favorable to the railways, for the government is less interested in privately owned railways than in other segments of the population which command more votes."

Personalizing Passenger Service

G. C. Paterson, assistant to vice-president-operations, Southern Pacific, described the steps that have been taken successfully on his railway in personalizing passenger transportation. Such services as nurse-stewardesses, chair car porters and train passenger agents were described in detail, together with the methods used in selecting such personnel. Mr. Paterson continued:

Voice courtesy over the telephone; courtesy, responsiveness and improved salesmanship at the ticket counter are now demanded. The S. P. has instilled into the consciousness of ticket agents and passenger representatives everywhere the importance of a good first impression and they have been taught that the passenger is to be treated as an honored guest. A higher intelligence

quotient is now demanded of the red caps—that important first point of contact with the passenger. The porters have been instructed in the theory of immaculate housekeeping, and dining car waiters are intensively trained to serve well without intruding.

Personalized service will be effective in direct proportion to the importance attached to it by managing officers. No officer should be too busy to take time out occasionally to ride trains of every class to get the reactions of the patrons, as well as to observe the functioning of the train personnel and to learn the problems of the crew. There is no substitute for the knowledge gained through personal contact. Not only does it provide unequalled opportunity for devising ways and means of improvement in every direction, but it is encouraging to the public-contact personnel to know that the executive officers have a vital and continuing interest in serving the public well.

Air Competition

A special committee, of which Henry F. McCarthy, passenger traffic manager, Boston & Maine, was chairman, made a complete and detailed report on the progress of airplane competition. The latest statistics show an increase of 30.4 per cent in passenger miles on the air lines in the first eight months of 1941 as compared with 1940. In 1935, the air lines flew 269,958,800 passenger miles; they flew 1,042,142,561 passenger miles in 1940, and they will fly an estimated 1,375,000,000 passenger miles in 1941. Records are being broken day after day and month after month, with no peak yet in sight. Presenting a summary of a recent air traffic survey, the report stated that in a one-week period covered, 80.2 per cent of the passengers were male and 19.8 per cent female passengers. Business travel represented 67 per cent; and personal travel, on either pleasure or personal business, 33 per cent. Government employees accounted for 10.9 per cent of the total passengers carried, and, during the one-week period, 7,186 passengers were refused space.

Mr. McCarthy quoted a comprehensive array of statistics portraying every field of the airplane industry so far as traffic is concerned, and pointed out that the industry as a whole was in the black in 1941 for the second successive year. He stated that, for the fiscal year ending June 30, 1940, 66.7 per cent of the total revenues were made up of passenger fares, 28.4 per cent of mail revenues, and 2.8 per cent from air express. He called attention to the startling change in these ratios from only a few years ago, when passengers accounted for only about 10 per cent of the total revenue. The report continued:

The diversion of individuals from rail to air continues, but, during the last year, an increase in the total available traffic has given the railroads a replacement patronage. The lack of airline route and schedule expansion has lessened the ability of the airlines to exert their full competitive pressure. The railways would do well at least to consider rail-air operating and ticketing coordination, as well as to study the advisability of offering an all-inclusive fare (including berth or seat and meals) to meet the marketing method of the airlines.

In view of the small percentage of air patrons traveling for other than business reasons, it would appear that the tourist classification will provide the greatest potential market for the airlines in the years to come. The most powerful factor that has influenced the airlines' success has been their modernity, both as to unique transportation technique and as to sales methods.

What Passenger Managers Discussed at Del Monte

Is attractive passenger service the selling force for freight service that many suppose it to be? S. P. Vice-President Saunders made a quantitative and qualitative survey of this question among important shippers and presents his startling findings to the passenger officers in a paper reviewed in this convention report.

How great a menace is prospective further development of air travel? Not so terrible, in the opinion of Professor Stuart Daggett whose views are summarized in these pages. Plenty dangerous, in the view of a committee headed by the B. & M.'s Henry McCarthy, which substantiates its belief with figures and advises the passenger managers specifically what they ought to be doing to offset this potent threat.

Proper treatment of military traffic gives the railroads an opportunity to make future friends and customers out of men now in uniform. Such is the timely advice of H. W. Siddall, summarized herein.

Referring to the all-important question as to what the railways can do, Mr. McCarthy's committee reported:

Shall we meet the air travel card device? This question should be reviewed and debated. In the air industry, the majority opinion is still that a credit plus discount device is necessary.

Are our present fare structures sound? Instead of a competitive standard of so much per mile, must we consider a new standard of so much per minute of travel time? This standard would keep our fare bases at a fractional differential of those of the airlines.

Is it wise to build up long distance round trip travel by fare and schedule inducements between major centers and sacrifice intermediate travel? The simple expedient of a fare cut can put the air industry in a strong competitive position to divert much of our present long distance traffic. Some thought to the great market that is characterized by intermediate distance travel is warranted. Is our present fare structure sufficiently attractive to these potential travelers? Is our present zeal to capitalize on today's schedules, equipment and ingenious round trip fares blinding us to the possibilities of future competitive moves?

The answers to all these questions depend to a large degree on economic conditions and the standard of living of the future. To an even larger degree, the answers depend upon the sales and marketing ability of the railroads along the following lines:

1. To provide modern equipment of 1941 standards of comfort and appearance.

2. To schedule and provide modern rail service between centers where there is a potential volume of travel under favorable competitive conditions. This may well be in the intermediate distance traffic field rather than the extremely long haul.

3. To subject the rail fare structures to constant re-examination and experimentation and not to adopt permanent formulas.

4. To create travel in the sense that the reason for

travel is stimulated and the facilities for travel provided under acceptable conditions. This effort is one of imagination and selling ingenuity.

5. To make use of modern sales methods and techniques, including advertising, publicity and personal sales efforts. This job requires organization set-ups far more elaborate and carefully designed than now characterize the usual passenger traffic department.

6. To discover the place of the independent tourist agent in the future picture of rail passenger transport.

7. To conduct a continuing sales and economic research program which will enable line officers to have up-to-date, factual information upon which to base day-by-day, as well as long-range sales methods.

Mr. McCarthy expressed the opinion that any future committees should study this question entirely in the light of what the railways are to do about the menace of airplane competition, rather than a mere study of the extent of this competition. A protracted discussion followed the reading of the report, during which it was brought out that any passenger traffic officer with a complacent viewpoint of the future air competition is due for a rude awakening. Eventually, the matter was referred to the officers of the association to appoint a committee to start in on the study of what may be done about it right now.

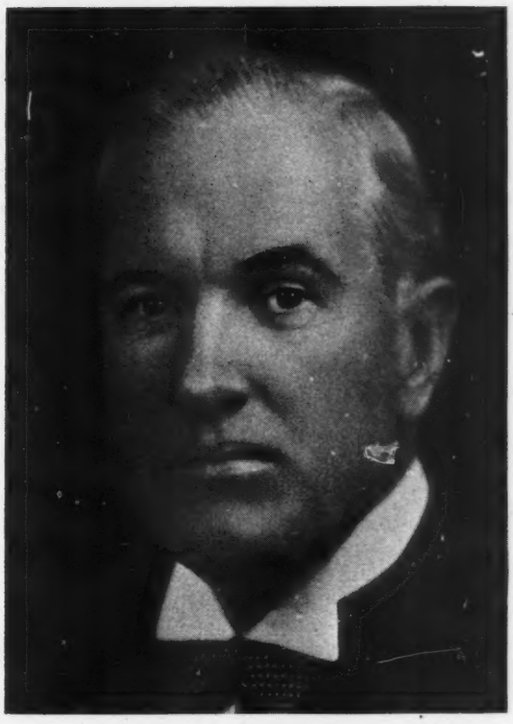
Other Activities

H. W. Siddall, chairman, Trans-Continental Passenger Association, who is also chairman of the Inter-Territorial Military committee, described the details of handling troops and also told of the present plan of the war department whereby holiday furloughs are staggered so as not to overburden the railways in the next few months. Col. Smyser, commanding the Quartermaster Corps in San Francisco, asked the railways to handle troops with more courtesy and consideration. He pointed out that these young men are the business executives of tomorrow and that no industry in the country has ever had such an opportunity to sell its services by having millions of potential customers brought to it.

Discussion was also held on the possibilities for straightening out the present somewhat chaotic conditions that exist with regard to Pullman and coach reservations. The opinion was expressed and strongly supported that, with increased passenger traffic making full occupancy increasingly important, some sort of penalty refund charge should be assessed on reservations that were not turned back sufficiently in advance of the departure of the train to permit resale. Several possible courses of action were suggested and the matter will be referred to the various territorial associations for more detailed working out.

A. D. McDonald Dies

Southern Pacific president passes on November 15, following an operation



A. D. McDonald

THE career of Angus D. McDonald, president of the Southern Pacific Company and chairman of the board and chairman of the executive committee of the St. Louis Southwestern, was brought to an untimely end on Saturday, November 15, when he died in San Francisco, Cal., following an abdominal operation performed two days before. Mr. McDonald had been president of the Southern Pacific since August 1, 1932, and as such, had been responsible for its policies and direction through the worst years of the recent depression. Under his supervision, this company, including the Southern Pacific Company-Pacific Lines, the Southern Pacific Lines in Texas and Louisiana, and the Southern Pacific Railroad Company of Mexico, withstood a great decline in the volume of traffic and emerged with its properties intact and in good condition, well able to play an outstanding part in the transportation effort that is being required of the nation's railroads today.

At the time Mr. McDonald became president of the Southern Pacific Company, the management of the various units of the company were consolidated for the first time under the direct guidance of one man. The entire Southern Pacific system extends over an area greater than that of any other railway company in the United States, reaching from Portland, Ore., down the West Coast and across two-thirds of the continent to New Orleans, La., and, including the St. Louis-Southwestern, to St. Louis, Mo.

In 1933, the first year after Mr. McDonald became president, the ton-miles of revenue freight carried by the Southern Pacific Lines and affiliated companies declined to 8¼ billion, as compared to 16½ billion in 1929. During the succeeding years its business increased gradually, reaching a peak of 16⅓ billion ton-miles of revenue freight in 1937, only to decline again to 13.7 billion in 1938. Revenue freight traffic increased again to 15½ billion ton-miles in 1939, to 17½ billion ton-miles in 1940 and during the present year will exceed all previous records in the history of the company in the volume of freight handled.

Net railway operating income of the company has fluctuated even more widely during this period, declining from $59,741,860 in 1929 to $9,057,074 in 1933, rising to $22,616,281 in 1937 and declining again to $14,297,003 in 1938. In 1939 net railway operating income amounted to $28,428,416 and in 1940 it increased to $32,465,859.

The curtailment of coastal shipping and also in the use of the Panama Canal, caused partially by the diversion of ships to England and for other wartime uses, has lately resulted in an unprecedented rise in traffic on the Southern Pacific, bringing the total of revenue ton-miles handled so far this year considerably above the corresponding volume of traffic in 1929. While other railroads have experienced large increases in traffic volume, no other large system in the United States has experienced so great an increase over 1929 as the Southern Pacific. During the present year, railway operating revenues on the Southern Pacific for the first nine months amounted to $214,691,972, an increase of 29 per cent as compared to the same period in 1940.

This increase in traffic was anticipated to some extent by the Southern Pacific, and in order to meet it, that road began to order a large volume of equipment as early as August 1, 1939. Since that date equipment costing $64,319,124 has been delivered or ordered. This equipment includes 182 locomotives, of which 80 are freight locomotives, 30 are streamlined passenger locomotives and 69 are Diesel-electric switch engines; 9,489 freight cars, of which 6,600 are box cars, 500 are automobile cars, 569 are flat cars, 805 are gondolas, 500 are hopper cars, 250 are tank cars, 215 are cabooses and 50 are sulphur cars; and 1,025 refrigerator cars (purchased jointly with the Union Pacific) and 79 passenger cars.

Such fluctuations in traffic and earnings present problems of unusual magnitude to any management. That the Southern Pacific has carried on as efficiently as it has during this period and has maintained its equipment and lines in condition to handle the unprecedented traffic it is moving today testifies, is a tribute, to the

farsightedness and excellent executive direction of Mr. McDonald during this most trying decade in railroad history.

Angus Daniel McDonald was born at Oakland, Cal., on April 14, 1878, and is a graduate of the University of Notre Dame. He entered railway service as a clerk in the accounting department of the Southern Pacific at Houston, Tex., in January, 1901. He was transferred to San Francisco in 1904, and in 1907 was appointed auditor of the Los Angeles Pacific Company (a Southern Pacific subsidiary), with headquarters at Los Angeles. A year later he became auditor of the Pacific Electric, and in 1910 he was transferred back to San Francisco as auditor of the Southern Pacific. In March, 1913, he was promoted to deputy controller and was transferred to New York, and only a month later was elected vice-president and controller. He held this position until June, 1925, when he was elected vice-chairman of the executive committee of the Southern Pacific Company and of the several Southern Pacific Lines in Texas and Louisiana. While continuing as vice-chairman of the executive committee, he was elected also president of the Texas & New Orleans, comprising the Southern Pacific Lines in Texas and Louisiana, in January, 1927. In July, 1932, he was elected president of the Southern Pacific Company, with headquarters at San Francisco. Mr. McDonald was later elected also chairman of the board and chairman of the executive committee of the St. Louis-Southwestern.

In a final tribute to Mr. McDonald, all trains and other operations of approximately sixty thousand employees were stopped for one minute from 10:00 a.m. to 10:01 a.m. on November 18, the exact moment during which the funeral mass for Mr. McDonald was begun.

Railway Wage Case Reaches White House

WASHINGTON, D. C.

Representatives of railway management and labor with authority to settle the wage dispute were scheduled to meet in Washington Friday, November 21. This was the outcome of the 2 p.m. White House Conference on Wednesday, as announced by I.C.C. Chairman Eastman after the session. It was learned that the conferees who met at the White House Wednesday afternoon did their discussing mostly with each other, Mr. Roosevelt being present for only about 10 minutes.

Messrs. Pelley and George Harrison said that no proposed settlement had been suggested at the White House. At the discussions on Friday the railroads were to be represented by their Joint Conference Committee headed by Vice-President Gurley of the Santa Fe. Each of the five operating unions was to have one representative and the non-ops were to have an executive committee of four as their spokesmen.

THE railway wage controversy received presidential attention on November 18 when President Roosevelt began a series of conferences with a group of government, railroad and labor representatives which included Charles Fahy, solicitor general of the United States, David J. Lewis, chairman of the National Mediation Board, Joseph B. Eastman, chairman of the Interstate Commerce Commission, Senator James M. Mead of New York, J. J. Pelley and R. V. Fletcher, president and vice-president and general counsel, respectively, of the Association of American Railroads, George M. Harrison, president of the Brotherhood of Railway Clerks, and Alvanley Johnston, grand chief engineer of the Brotherhood of Locomotive Engineers. At his press conference later the same day, the President said that he had no news with respect to the meeting; but further meetings were held on the following day when Mr. Roosevelt met in a morning conference with Messrs. Fahy, Lewis, Eastman and Mead and in an afternoon session with all eight conferees.

The four Wednesday morning conferees spent over an hour with the President, indicating that there may have been extended discussion of proposals to bring to the afternoon session at which the A. A. R. and labor representatives would also be in attendance. The only statement they made, however, was one to the effect that they had discussed the matter with the President and were returning again for the afternoon meeting.

Upon emerging from the White House after the initial meeting on November 18, the conferees did not discuss the nature of their conversations with the President, except to indicate that they had unfolded for him a broad picture of the whole situation which has arisen as a result of the strike threat of the five operating brotherhoods and the dissatisfaction of the 14 non-operating unions with the recently-promulgated Emergency Board recommendations. The Board recommended temporary increases in wages of 7½ per cent for the operating employees and 13½ per cent for the non-operating group which latter would also get vacations with pay. The operating brotherhoods have set a strike for 6 a.m. December 7, 8 and 9; and after the November 18 White House conference Mr. Johnston said that the strike order still stood.

When the membership of the group which the President had called in was announced, there was considerable speculation about the inclusion of Solicitor General Fahy, who was acting attorney general this week, and Senator Mead. It is understood, however, that the President desired some information from Mr. Fahy as to the applicability of land-grant rates to government traffic moving in connection with the defense program; while Senator Mead was recognized as one of Mr. Roosevelt's "old friends" who might be expected to know the sentiment in Congress as to the railway strike-threat situation, as he is certainly familiar with the unionists' position.

A statement issued by the 14 non-operating brotherhoods on November 13 did not reveal that a strike date had been set but merely said that these employees are "determined to press their demands for equitable consideration and relief against present intolerable wage standards and to gain reasonable vacations."

"The refusal of the President's Emergency Board to grant an increase in prevailing contract wages (except as to certain minimums), and recommending only temporary additions to wage payments for a limited period of time, is most disappointing to the employees," the statement said.

"The Board admits wage standards in other industries are rising, but completely ignores this fact in its recommendations. While the Board pays lip-service to the system of orderly procedure required by the Railway Labor Act in the consideration and disposition of controversies over wage changes, it substitutes compromise

(*Continued on page 887*)

Stand Firm, N. I. T. L. Wires FDR

Members oppose construction of St. Lawrence Seaway and Florida Ship Canal—Believe railroads do not appreciate l. c. l. business

THE taking of an official position on 38 of the 153 matters presented by committees was the record of the annual meeting of the National Industrial Traffic League at Chicago on November 13 and 14. The remaining subjects were reported as information or were referred back to committees for further consideration. The meeting, over which President J. E. Bryan, general traffic manager of the Wisconsin Paper & Pulp Manufacturers Traffic Association, presided, endorsed the report of the Emergency Labor Board, opposed the construction of the St. Lawrence Seaway and the Florida Ship Canal, was of the opinion that the railroads do not appreciate their l. c. l. business and opposed the equalization of rail rates on defense materials.

Officers elected for the ensuing year are as follows: President, R. R. Luddecke, general traffic manager of Standard Brands, Inc., New York; vice-president, Clare B. Tefft, manager of the Transportation and Foreign Trade departments of the Toledo Chamber of Commerce, Toledo, Ohio; and treasurer (re-elected), R. W. Campbell, manager of the traffic department of the Butler Paper Corporations, Chicago.

Because of the uncertain conditions confronting the nation, the members of the League decided that a spring meeting may be desirable. They also elected to hold the 1942 annual meeting in New York on November 19-20, with the Executive Committee meeting on November 17-18.

"Stand Firm" on Wage Dispute

The wire to President Roosevelt read in part: "The National Industrial Traffic League urges that you stand firm for settlement of the present railroad wage controversy by the orderly democratic process and method contemplated by the federal statutes and as reflected in the findings of the report of the Emergency Board appointed by you, this to the end that such settlement will be reached without disastrous strikes and paralyzing cessation of railroad service. Further, on behalf of shippers generally and the public, the League urges that you keep prominently in mind the danger to the public interest inherent in any increase in railroad transportation costs which is of such magnitude that necessarily it must be reflected in general or horizontal increases in freight rates and in turn contribute to higher prices of goods, higher living costs and burden to national defense."

The wire sent to the President was based upon resolutions previously adopted by the convention, which read as follows:

"(1) It is gratifying, indeed, in the public interest that this controversy, instead of producing a strike with resultant paralysis of national transportation has gone through this democratic process established by federal statutes and it will be most gratifying to the shippers and the public generally if the wage settlement recommended by the Emergency Board for acceptance by labor and by the railroads becomes effective and any suspension of railroad operation avoided. That is the paramount matter.

"(2) The League, on behalf of shippers throughout the United States for whom it speaks, commends the Emergency Board for recognizing that the matter of increased freight rates and other transportation charges, if and when proposed by the carriers, is a question for determination by the Interstate Commerce Commission, on proper evidence, without prejudice.

"(3) The League further commends the Emergency Board for recognition in its report that any increase in the cost of performing transportation service by railroad which is of such magnitude that it may be reflected in general or horizontal increases in the freight rates, is decidedly against public interest, of inflationary tendency and effect, necessarily would be added in the price of goods, further increasing the already high cost of living and the cost of national defense."

Against St. Lawrence Seaway

Despite the arguments of members interested in waterway development, the League went on record as opposed to the construction of the St. Lawrence Seaway and the Florida Ship Canal as economically unsound, of no defense value, as tending to divert materials and men from other necessary work and as being injurious to agriculture, industry, the ports and the railroads. Although the St. Lawrence waterway has been before the League for a number of years, this is the first time that it has taken a definite position. During the debate, it was disclosed that citizens of Florida do not want the ship canal.

The League also passed a resolution contending that the strike of truck drivers in 11 mid-western states, scheduled for November 15, would be a national calamity and urging both the unions and the truck operators to submit their differences to an "impartial board or commission under a democratic process such as that exemplified by the Railway Labor Act." It directed a special committee to bring the resolution before the employees and employers and to take such other action as may be appropriate in consonance with the spirit of the resolution. The dispute involves wages and working conditions in 11 states west of Buffalo and including Nebraska and Kansas.

Rap Railroad l. c. l. Service

A special committee on Merchandise Traffic was of the opinion that rates and service of air express and freight are proper and adequate under present circumstances, that Railway Express, Inc., should not have a monopoly of the air express service, that present parcel post service and rates are on about the proper basis, that where Railway Express does not provide pickup or delivery there should be a different basis of rates, that the lack of complete forwarder service slows up the railroad service on the balance of the traffic which is

left to the railroads, that local common carrier truck service is adequate and reliable, but that interline service is poor, that truck rates have followed entirely too closely to the rail basis, and that the railroads do not appreciate their l. c. l. traffic. On the latter subject the committee said: "There is considerable criticism among your committee of the merchandise service of the railroads. This begins, we believe, with the lack of proper appreciation by the railroads of their l. c. l. traffic and the fact that the railroads have created special departments for the handling and solicitation of special types of carload traffic and have allowed the merchandise traffic to be a stepchild—everybody's business and, consequently, nobody's business. The distribution of information concerning merchandise service by the railroads is extremely poor. Those who have the information available do not distribute it properly, and many do not have any such information for distribution at all."

The committee recommended that it be authorized to endeavor to arouse among the railroads the greatest possible interest in merchandise traffic and where the opportunity offers, to work through the Rate Construction and Tariffs Committee to have a proper basis of l. c. l. rates established by the rail carriers.

Oppose Equalization of Freight Charges on Defense Materials

S. J. 90 and a similar House bill, which propose payments by the U. S. for the purpose of equalizing, as between the different regions or territories, freight charges arising from or out of the transportation of defense materials during the emergency, were opposed by the League. If such legislation is to be enacted, the report of the Legislative Committee recommended, the League should seek an amendment thereto which would make the principle apply to any territory in the event a lower basis of rates is in effect in any other territory. The Committee held that these resolutions are class and sectional legislation and if enacted, would bring about gross discrimination between the various rate regions because they provide for the equalization of rates in other territories when such rates are higher than applied in official territory but do not provide for similar equalization in respect of shipments moving in official territory at rates higher than those in other territories.

The League went on record as opposed to a "commodities clause" which would prohibit private industry from transporting its products in its own trucks. It also considered a report of a special committee on the itinerant merchant or person who buys goods for the purpose of sale and transports them upon public highways by the use of a motor vehicle. The committee said that, according to a cross section of opinion throughout the country, an itinerant merchant is either an enemy to established industry or a friend to little business men. The committee recommended that the League recognize the existence of controversy regarding the itinerant merchant; that the League find the problem is limited to specific commodities; that the injury is one which arises more particularly from commercial than transportation conditions; that the situation is not feasible of remedy by federal legislation, but must be treated from the commercial standpoint by state governments in the affected areas; and that the League and its counsel assist the members in the affected areas to draft legislation which will remedy the evils without impeding the flow of general traffic.

The Highway Transportation Committee discussed the practice of highway carriers to increase their rates to the rail bases, saying: "Within the past year there has been evidence of concerted action among various groups of common motor carriers looking toward further conformance of their rate structure with that of rail lines and further ignoring of statutory mandate and sound economic principle in rate-making. After the publication of a substantial classification revision by rail lines in Southern Territory, much discussion was heard among motor carriers of the possible extension of that revision to other territories and of a railroad 'blitzkrieg,' both as to rates and as to classification. With the avowed intent of either forestalling such rail action or of putting themselves in a better position to request suspension thereof when finally published, motor carriers and their tariff publishing organizations, either individually or by concerted action, arrived at a program of rate revision whose salient points included cancellation of all l. c. l. commodity rates and classification exceptions lower than those maintained by rail carriers, cancellation of all so-called 'quantity' or 'breakdown' rates, continuation or establishment of 'volume' rates equal to rail carload rates and at the rail carload minimum weight, and establishment of 'truckload' rates 112½ per cent of such volume rates, with a minimum weight of 20,000 lb. or by some formula related to the 'volume' minimum.

"It is not believed that the motor carriers have abandoned their proposals or their intention but rather have merely shifted their point of attack. Evidently feeling themselves unable to justify their proposals on an overall basis (the revenue-need argument having fallen flat under present conditions), they expect eventually to attain the same result by piecemeal revision, commodity by commodity, thus never at one time feeling the full brunt of shipper or League opposition.

"The propriety and lawfulness of this general method of motor carrier rate making should be decided on a comprehensive record in which it is the main issue rather than in a particular commodity adjustment in which other questions may be overshadowing. Furthermore the 'trial balloon' practice of motor carriers should be condemned—the filing of an adjustment to determine the reaction thereto, and then if strong opposition develops or if an adverse decision appears probable, withdrawing it to prevent any action thereon by the Commission."

The Committee recommended that the League attempt to secure adjudication of this type of revision in a general proceeding of comprehensive scope; that if such effort is not successful, the League participate in such proceedings of more limited character as may be necessary to prevent the adoption and spread of the rate-making practices involved; and that the League call to the Commission's attention flagrant instances of "trial balloon" procedure on the part of common motor carriers with the request that the Commission take appropriate steps to cause its abandonment.

Eastman Lauds Shippers

Joseph B. Eastman, chairman of the Interstate Commerce Commission, lauded shippers for their untiring co-operation with the carriers in providing the country with speedy defense transportation service. In an informal address before the meeting, he pointed to new records established in attaining this efficiency. The Commission, he said, has started its work of rate regulation for the water carriers under the Transportation Act and both the Commission and the waterway companies, he said, "are off to a good start." In the rate work of the I. C. C. as it affects the motor truckers, the

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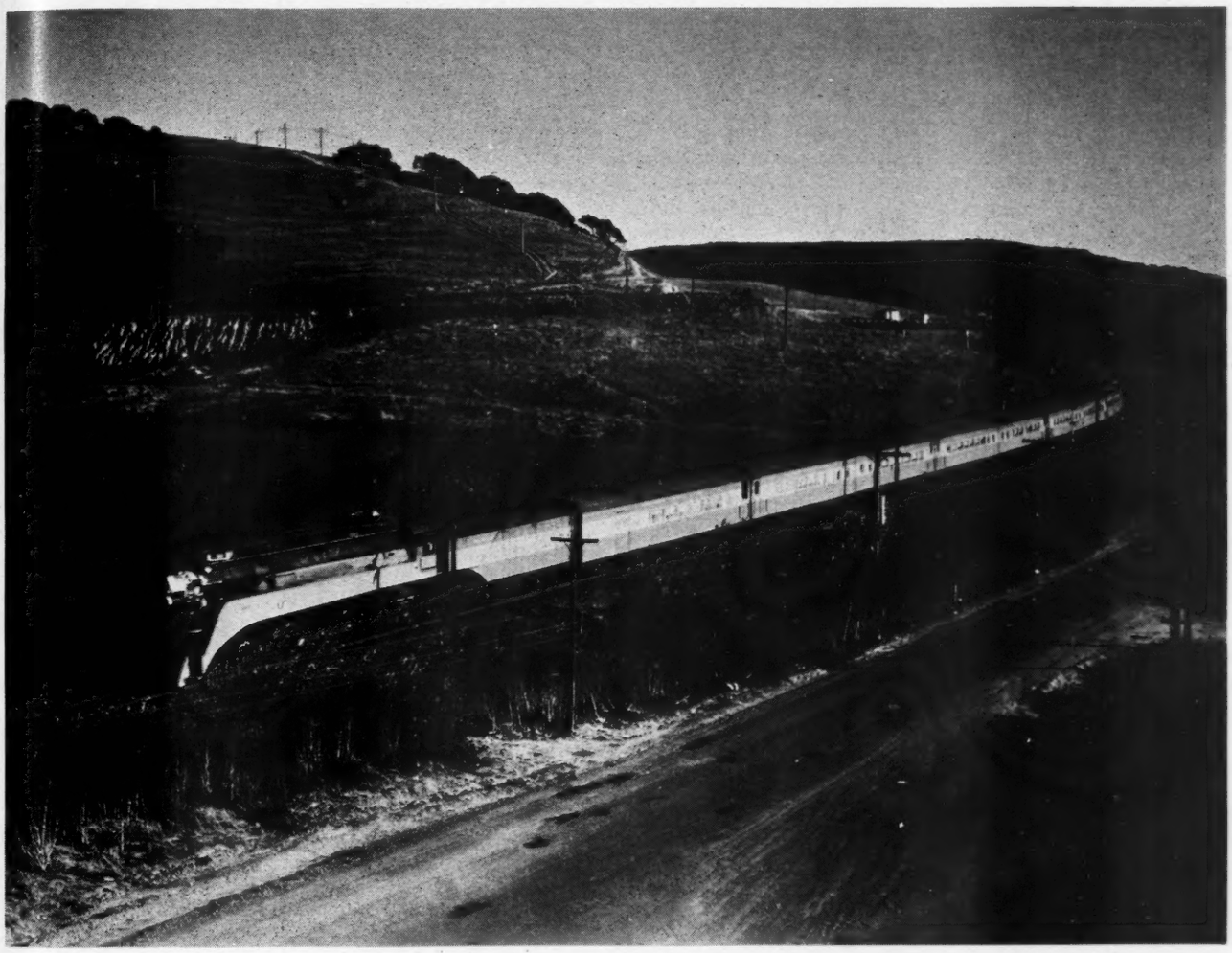
CREATE NEW TRAFFIC



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Commission found its work the "farthest in arrears, but we are beginning to see daylight."

C. E. Childe, member of the Board of Investigation and Research created under the Transportation Act of 1940, discussed the work of that Board, saying that "there can be no doubt that congressional policy regarding all subjects involved will vitally affect the commercial and economic welfare of our country. It is just as important that the viewpoint of the shippers be developed and submitted in these matters, as it is to determine the views of the carriers. In the present unsettled conditions of commerce and transportation, I can not imagine anything more worthy of the earnest thought and study of the League than these subjects which must be considered by the Transportation Board of Investigation and Research.

"Of course, there is much conflict and confusion of views, and it is plain that all of us must try to rise above personal interests and prejudices, and look at the problem from the standpoint of the best interest of the nation as a whole. I realize that, in these times of great emergency, the energies of all of us must be devoted first and foremost to fulfilling our obligations in carrying on the program of national defense and preserving our democratic way of living. I don't need to remind you, however, that sound transportation policies and practices are vital to the winning of the war and solving the post-war reconstruction problems that will come later."

Railway Wage Case Reaches White House

(*Continued from page 884*)

for justice in the interest of unanimity among the Board members. Orderly procedure as a substitute for economic warfare cannot survive unless it produces justice.

"While the Board states another factor influencing its decision is rising food prices, at the same time it denies any relief to the employees of short line railroads except a minimum wage of 40 cents per hour. The recommendation of the Board completely ignores its own findings that economic changes are occurring rapidly and are unpredictable.

"In spite of these facts, the astounding suggestion is made that railroad wage levels continue unchanged and that a temporary bonus of 9 cents per hour be provided to meet this condition. The proposal for temporary additions to wage payments ignores all past history of wage fixing and introduces a new element that the Board itself denounced in disposing of the carriers' proposed bonus plan. A bonus plan in any form is no answer to this question; nor can it be tolerated by railroad labor. Not only is the Board's suggestion inadequate to meet its own conclusions, but it entirely ignores other admitted facts disclosing that railroad wages are far behind those in other industries.

"While the Board dwells at length upon the virtue of an adequate minimum wage, it dismisses this problem with the indefensible recommendation that employees of trunk line railroads be paid a minimum wage of not less than 45 cents and employees of short lines 40 cents per hour. If this is the Board's view of an adequate minimum wage, then there is little difficulty in understanding how it ignored its plain duty in the general wage issue.

"The recommendation of 6 days' vacation with pay is a disgrace to an industry that gains a large share of its business from vacation activities of the people. The record in this case abundantly shows that industry generally grants more liberal vacations, but the Board makes the amazing suggestion that the employees should sacrifice some of their normal working conditions to permit application of this slight concession. This is wholly unsatisfactory.

"The facts and the record in this case warrant an increase in contract wage rates that will give to railroad labor equality of treatment with other labor of similar skill and minimum wages in line with those established through collective bargaining in other major industries. The railroad employees want freedom of opportunity to protect themselves against rising prices and to participate in generally increasing wage levels. This cannot be done in view of the restrictions suggested by the Board."

Strike Instructions

Strike instructions issued by the transportation brotherhoods provide for withdrawal of men on about one-third of the railroads in each territory on each of three days, December 7, 8 and 9. The order in which the railroads will be affected is the same as that decided upon when these employees previously set September 15, 16 and 17 as the dates for a strike. The grouping of the major railroads in the strike plan was reported in the *Railway Age* of September 13, page 421.

According to the instructions, an employee will complete a trip and deliver the locomotive and train at the end of the run if the train has left the terminal before 6 a. m. All men on strike will keep away from the company's property, except such men as are designated certain duties to be performed by authority of the organization. Acts of violence of any nature will not be tolerated by the organization. All strikers will answer a roll call at meeting halls at all terminals.

New Book . . .

Iron Horses, American Locomotives 1828-1900, by E. P. Alexander. 239 pages. 11 in. by 8½ in. Bound in cloth. Published by W. W. Norton & Co., New York. Price $5.

This beautiful volume is well worth its substantial price of $5. It is primarily a collection of full-page drawings, lithographs and prints comprising 98 plates in all (including a double page in full color) showing representative steam locomotive types from the "Stourbridge Lion" of 1829 to a Baldwin-built Vauclain compound consolidation for the Union Pacific of 1900. The originals of a large number of the illustrations are in the possession of collectors and not available to the general public. The author himself has drawn several early types on the basis of descriptions at hand.

With each plate there appears a short running commentary describing the locomotive pictured and characterizing the chief advances in locomotive design for which that particular year is noteworthy. The historical data of the book is unquestionably the result of the collective labors of students of the locomotive whose findings the author has itemized for the first time in a single book. It is not clear to this reviewer what Mr. Alexander means in his statement on page 102 that the "Assanpink" built by the Trenton Locomotive Works for the Belvidere Delaware (Pennsylvania) had outside link motion which "eliminated the cranked axle, which was otherwise necessary for operating the link motion."

The short history of the locomotive which precedes the plates is illustrated by interesting prints from copies of the "American Railroad Journal," stock certificates and steel engravings of the American Bank Note Company. At the rear of the book there appears a list of present and former locomotive builders in the United States. A surprising array of names and locations shows the extent to which the locomotive-building field was decentralized in former times.

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NEWS

I.C.C. Orders Jim Crow Sleepers

Obeys Supreme Court ruling but its order is restricted to case decided by court

Conforming to a unanimous decision of the United States Supreme Court at its session of April 28, 1941, details of which were given in the *Railway Age* of May 3, 1941, page 767, the Interstate Commerce Commission has modified its report in the case of Arthur W. Mitchell vs. the Chicago, Rock Island & Pacific.

In its previous decision the Commission had found that negro Congressman Mitchell had not been discriminated against by the Rock Island when that carrier refused to permit him to ride in a Pullman occupied by white persons after the train had crossed into Arkansas where a so-called "Jim Crow" race-segregation statute was in force; there being no Pullmans on the train set aside for the use of negroes. As a result of its finding, the Commission dismissed Mr. Mitchell's complaint. He then carried the case to the Supreme Court and won a unanimous decision reversing the finding and action of the Commission.

It might have been thought that the order of the Commission would run to all railroads operating in states having "Jim Crow" laws, but the Commission merely reverses itself in the case of the Rock Island in Arkansas on this particular run from Memphis, Tenn., to Hot Springs, Ark. The pertinent part of the Commissions order reads as follows:

"In conformity with the above-cited opinion of the court, and upon the record in this proceeding, we find that the accommodations furnished the complainant on April 21, 1937, and to other colored passengers traveling in Arkansas over the line of the defendant Chicago, Rock Island & Pacific at the first class fares on through journey from Chicago to Hot Springs were, are, and for the future will be unduly prejudicial to colored passengers and unduly preferential of white passengers, in so far as such accommodations have not been, are not, and will not be substantially equal to those that were, are, or may be afforded white passengers traveling under like conditions."

As a result of the modification of the decision, the Rock Island and the Pullman Company are required to cease and desist on or before December 24, 1941, from practicing any discrimination such as the Supreme Court found to exist. The brief order of the Commission makes no suggestion as to how the Rock Island and the Pullman Company may solve the question of segregation of negroes who desire Pullman accommodations. In some quarters of the Commission it was felt that the mandate of the Supreme Court might be met simply by following the present practice of giving negroes a drawing room, while others thought that it might be obeyed by dividing one Pullman car instead of running a separate one for the small negro patronage that appears from the record to exist.

Debtors vs. Big Bondholders

A bitter controversy between big institutional bondholders and the corporate management of the Missouri Pacific over treatment accorded to stockholders in the pending reorganization plan for the road has now reached the spotlight of the public forum. Opening gun was fired by Chairman J. S. Pyeatt on November 4 in an announcement that the management (of the old railroad corporation) would ask bondholders to reject the plan because it would invite staggering taxes (*Railway Age*, November 8, page 756). Now comes John W. Stedman, chairman of the protective committee for first and refunding bonds, and a vice-president of the Prudential Insurance Company, with a letter urging bondholders to accept the plan, charging that the real motive behind the management move is to protect the Alleghany Corporation, owner of a majority of the common stock, from loss of its investment. Contents of the letter are reviewed in the financial columns of this issue.

Freight At Soo Locks Reaches All-Time Peak

Freight traffic through the locks at Sault Ste. Marie, Mich., reached an all-time high on November 7 of 96,762,140 tons for the season. With a month and a half of the navigation season still ahead, the total for the year will probably exceed 100,000,000 tons. The previous high tonnage for any one season was 92,622,017 tons in 1929. Last year up to November 1, a total of 80,294,626 tons moved through the locks. The volume for all of 1940 was 89,858,319 tons.

Refuse to Review Chi. Board Case

2-to-1 majority of circuit court of appeals thinks it dandy that law favors unions

The findings of the National Railroad Adjustment Board are not subject to judicial review by the federal district courts or circuit courts of appeals as a result of suits filed by the railroads under the Declaratory Judgments Act. This, in effect, is the gist of a two-to-one decision handed down by the United States circuit court of appeals for the District of Columbia on November 18 in the case brought by the Washington Terminal Company, owner of the Washington, D. C., Union Passenger Station, against certain of its employees in an attempt to test the Board's power to interpret "featherbed rules."

Thus, for the first time, one of the nation's next-highest courts has held that the carriers cannot successfully attack what they have alleged to be grossly unjust decisions of the Board in the so-called "feather-bed" cases by demanding a judicial review under the Declaratory Judgments Act.

Justice Rutledge wrote the majority opinion which was concurred in by Justice Miller, while Justice Stephens wrote a lengthy dissenting opinion in which he held that the railroads should be entitled to a judicial review of the Board's decision.

The history of the case can be briefly set out in this fashion: The Terminal company filed a suit in the United States district court for the District of Columbia in December, 1938, challenging the demand of the Brotherhood of Locomotive Firemen & Enginemen and the Brotherhood of Railroad Trainmen that the Terminal be required to employ special additional switch engine crews to back trains of empty cars between the passenger station and the storage yard. Details of the suit, which were given in the *Railway Age* of January 7, 1939, page 100, revealed that the work has hitherto been performed by the engine crew which brings the train in over the road; and this is still being done, despite the decision of the Adjustment Board. After considerable legal sparring back and forth by both sides, the district court found against the railroads, holding that the court had no jurisdiction to review the terms of the contract existing between the company and the brotherhoods involved. The case was then appealed by the Ter-

(*Continued on page 894*)

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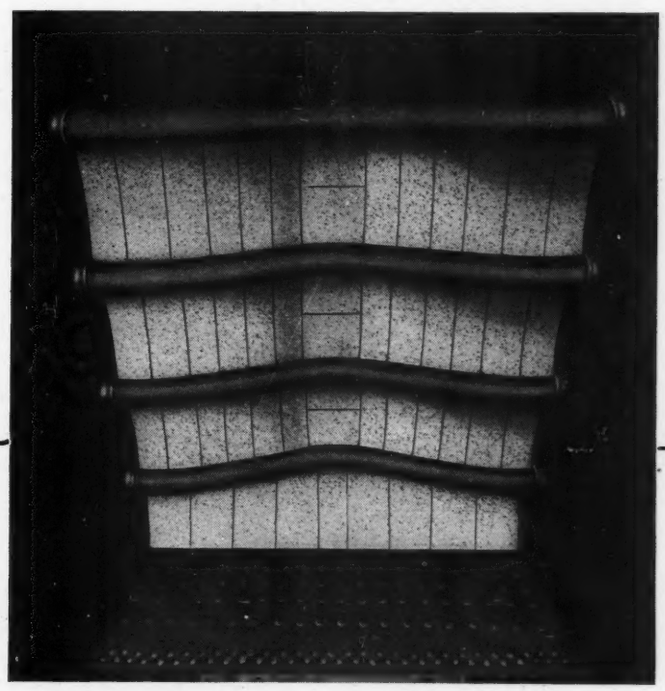

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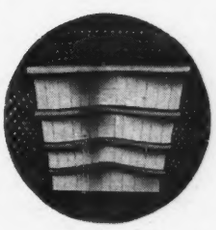

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Not Easy to Sell Sleepers to RRs

Task "hopeless", E. G. Budd says at Pullman trial—Further action off till March

Called as a government witness in the Pullman anti-trust case at Philadelphia, Pa., Edward G. Budd, president of the car manufacturing company which bears his name, characterized the market for sleeping cars as "hopeless" for his company. The government finished calling its witnesses in the trial on November 18 and the trial was adjourned until March 2, when counsel for Pullman will present its case. The government had subpoenaed more than 50 witnesses, including top-ranking figures in railroading and financial circles, but by reason of the satisfaction by a majority of them of requests for submission of documents, the government ultimately called only 16 witnesses, all of whom have testified.

Mr. Budd, who testified on November 13, when asked whether his company has tried to sell sleeping cars, replied: "After the experience with the Santa Fe, we have had a hopeless situation as regarded the market and we haven't paid much attention to trying to sell them. We did have a very vigorous campaign on with the Seaboard and we thought we had succeeded in selling them sleepers. Afterwards we found we didn't get the order."

Considerable time was spent by Fowler Hamilton, government attorney, in examining William K. Etter, vice-president, Atchison, Topeka & Santa Fe, on the circumstances surrounding orders placed by that road with the Budd Company for lightweight equipment. The witness testified that an order was placed in 1936 for six 8-car trains of sleeping cars, diners, lounge and baggage-mail cars. He went on to explain that the order was subject to change; that the "question of building lightweight equipment was more or less in flux. We hadn't made up our minds what we wanted to do and for the purpose of renting space in the shop where we might be able to get the cars, we placed this definite order for the space in Mr. Budd's shop."

Mr. Etter testified that the Santa Fe subsequently changed the order substantially as far as consist was concerned, substituting coach for sleeping car equipment. Asked the reason, he explained that rapid changes in car design and a new need for lightweight coaches dictated the move. Government counsel received confirmation that the railroad was negotiating a new contract with Pullman for sleeping car service during this same period, but the witness insisted that there was no intimate connection between the two factors. He pointed out that Pullman sleeping cars were ultimately purchased because "we were not altogether satisfied with the lightweight car which Pullman was building or proposed to build and liked the Budd car better, but later on the Pullman people did develop a car that suited us better than the one they first proposed." He added that at the time the order for cars was placed with Budd, the Santa Fe anticipated that it could negotiate with Pullman for operation of such cars.

In further examination he said that information that Pullman would refuse to operate cars built by Budd reached him "only by hearsay." At another point the witness said that at the time the new Pullman contract was being negotiated Santa Fe executives discussed the possibility of conducting their own sleeping car service. Discussing the operation of the five sleeping cars which Budd did build for the road, Mr. Etter declared that this equipment is operated in trains containing also Pullman-built cars and is operated by Pullman under separate contracts under terms similar to standard contracts with respect to earnings and expenses but different with respect to amortization. He concluded his remarks with a repetition of the observation that lightweight car design is still "in flux." "For instance," he asserted, "we have a new lightweight car now that we think will make Pullman sit up and take notice . . . I have some being built . . . I have a car now . . . just took delivery."

Ralph Budd, president, Chicago, Burlington & Quincy, testified that operation of its own sleeping cars is not practicable for a road on connecting line traffic but is feasible for small railroads on local hauls. The Great Northern, which was operating its own sleepers in 1919 when Mr. Budd became its president, later made a contract with Pullman because its own cars were growing old and the growing importance of through traffic and seasonal tourist business made Pullman service more desirable financially and from a service standpoint. W. A. Worthington, vice-president, Southern Pacific, told the court that it is not practical for his road to operate its own sleeping cars and that it is satisfied with Pullman service. He added, however, that if Pullman should offer an unsatisfactory contract or give inferior service, the S. P. would operate its own cars "regardless of cost," probably trying "to get some other roads into the scheme with us."

Daniel Upthegrove, chief operating officer, St. Louis Southwestern, testified that his road now operates only six Pullman cars and that it would not be pactical to set up its own organization to operate sleepers. (On later cross-examination by Pullman counsel he changed this to "not so convenient or economical.") At one time the road had Pullman build a special combination coach-sleeping car-buffet—for which Pullman advanced the money—which the railroad itself operated. The experiment was not satisfactory and the road returned to Pullman operation in 1934 or 1935. Other witnesses called by the government were George W. Hand, assistant to chief executive officer, Chicago & North Western; G. H. Sido, chief operating officer, Wabash; E. Flynn, executive vice-president, Burlington and Colorado & Southern; and H. W. Anderson, co-receiver, Seaboard Air Line, all of whom testified that it was more feasible to use Pullman service than to operate their own sleeping cars and that Pullman service is satisfactory.

Edward A. West, general manager, Denver & Rio Grande Western, testified on

(*Continued on Page 894*)

Seatrain Victor In Per Diem Case

Divided commission absolves line from paying rental on cars waiting for boats

Railroads participating in through routes with Seatrain Lines, Inc., will be required by the Interstate Commerce Commission to interchange their cars with that seagoing car carrier at the regular $1 per diem rate to be paid by Seatrain "only for such period as the cars are in its actual possession." The commission in a report by Chairman Eastman has rejected railroad contentions that the rate to Seatrain should contemplate that the water carrier, which has no cars of its own, "should bear its full share of the cost of car ownership during idle and unproductive time;" and that rail lines which connect with Seatrain through the New Orleans & Lower Coast should not be required to assume per diem payments on cars held at New Orleans, La., to await Seatrain sailings.

Chairman Eastman's report is the second report of the commission on further hearing in No. 25728, Hoboken Manufacturers Railroad Company v. Abilene & Southern Railway Company et al., and it embraces also No. 25878, New Orleans & Lower Coast Railroad Company v. Akron, Canton & Youngstown Railway Company et al. Separate expressions came from Commissioner Lee, dissenting in part, and from Commissioner Patterson, dissenting. Commissioner Mahaffie agreed with Mr. Patterson as did Commissioners Rogers and Alldredge, except that the latter two regard Seatrain as a water carrier whereas Mr. Patterson stated it to be his opinion that, "contrary to the finding of the majority of the commission" in an earlier case, Seatrain "is a car ferry operated in connection with the railroads, and, accordingly, a railroad within the meaning of section 1 of the Interstate Commerce Act."

After dismissing as something fully disposed of in a previous report the contention of the Association of American Railroads that the commission was without power to require the railroads to permit the use of their cars by Seatrain, Chairman Eastman said that the present report disposed of the following questions: (1) The compensation which the defendants required to interchange their cars with Seatrain should receive for the use of such cars; (2) to what other terms and conditions the interchange should be subject.

As noted above, the defendant railroads urged that the rate to Seatrain should take into consideration the fact that the water line owns no cars. Also, they alleged that "Seatrain manages to avoid the movement of empty cars, thus escaping its share of this burden." From their studies, the defendants, as Mr. Eastman put it, "express confidence in the 'conclusion that approximately nine or ten idle days' are attributable to the average use of a car by Seatrain, and hence that it should pay per diem at the rate of $10 per day." However, Seatrain "offered of record to acquire cars for interchange with the railroads if and

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when such acquisition is desirable from the standpoint of the car supply of the country;" and "it appears also that Seatrain rents a substantial number of privately-owned cars." Moreover, "so far as the movement of empty cars is concerned, Seatrain holds itself ready to move in the home direction cars which it has moved in the opposite direction under load."

"In all the circumstances," the commission said, "we find no good reason why Seatrain should pay a higher per diem rate than the $1 now applied uniformly by car-hire rules, especially when the record shows, and it is admitted, that the cost of maintaining the cars is decreased approximately 10 cents per day while they are in its possession."

The No. 25878 proceeding involved the question of liability for per diem on cars held awaiting Seatrain sailings from New Orleans. The issue did not arise with respect to sailings from its North Atlantic terminal at Hoboken, N. J. Line-haul railroads connecting there with Seatrain through the Hoboken Manufacturers undertake to assume the per diem and other expense of detention of cars. In rejecting the contention of defendants in No. 25878 that Seatrain should be made to pay per diem on cars held at New Orleans, the majority suggested that presumably rail-water rates and divisions take care of the detention expense which is assumed by the line-haul roads when traffic is interchanged with break-bulk water lines. The report added: "If defendants are relieved by per diem payments of Seatrain from a burden of car detention which they bear on traffic interchanged with the break-bulk lines, they will, theoretically, be entitled to relatively lower divisions on through rail-water rates with Seatrain than with the break-bulk lines, or to relatively lower local or proportional rates to or from the ports where the through rates are made on combination. Considerable difficulty, however, would be encountered in making any such adjustment. From a practical point of view, therefore, the simple and desirable way of handling the matter is to leave the burden of car detention with defendants when traffic is interchanged with Seatrain just as when it is interchanged with the break-bulk lines."

Finally, the commission adhered to the view expressed in its previous report that it has no power to make a finding which directly or indirectly would require the defendant railroads to turn over their cars to the complainants (New Orleans & Lower Coast and Hoboken Manufacturers) for use by Seatrain in its Cuban traffic.

Dissenter-in-part Lee agreed with the majority except insofar as it required defendants in No. 25878 to bear the per diem payments on cars held for delivery to Seatrain at New Orleans. He thinks Seatrain should be made subject to per diem rule 15 which provides that "a road failing to receive promptly from a connection cars on which it has laid no embargo, shall be responsible to the connection for the per diem on cars so held for delivery." Dissenter Patterson took the same position, after expressing his aforementioned opinion that Seatrain is a railroad within the meaning of section 1 of the Interstate Commerce Act. But whatever it is, he added, it should, so far as responsibility for car rental is concerned, "be treated exactly the same as a line-haul rail carrier, receiving all of the privileges and assuming all of the responsibilities that the railroads receive or assume in their relations with each other."

Eastern Executives Accept Board Finding

The Eastern Railroad Presidents' conference formally approved and ratified on November 18 the action of the carriers conference committee in accepting the findings of President Roosevelt's fact-finding board on November 13.

I. C.'s Florida Train Named "Sunchaser"

"Sunchaser" has been selected as the name of the all-Pullman train which the Illinois Central will operate out of Chicago and Miami, Fla., beginning December 17 under a co-ordinated rail service program in which the Chicago-Florida lines will participate. This program was described in the *Railway Age* of September 20, page 453.

Derailment at Station Kills Bystanders

A broken truck side on a foreign car caused 14 cars of a freight train on the Chicago, Rock Island & Pacific to leave the rail near Scandia, Kan., on November 16, killing three students in a parked car and damaging the station. A fourth high school student of two couples who had parked their automobile near the track to watch the "Rocket" pass, is in a critical condition.

Short Routing of Empty Cars

W. C. Kendall, chairman of the Car Service Division, has issued a circular stressing the necessity for maintaining at the lowest practicable level the empty mileage involved in the relocation of freight cars to owners. The circular was issued at the request of the committee on car service of the A. A. R. Operating-Transportation Division, which has been debating the merits of a proposed mandatory rule on the matter, although it prefers "the energetic cooperation of all railroads."

Truck Drivers' Strike Averted

A strike of more than 200,000 midwest truck drivers threatened for midnight on November 15, was averted on the previous day when committees representing the drivers and the operators agreed to refer their differences over wages to the National Mediation Board. The employees and the operators had agreed to a closed shop and other clauses of a contract to replace the one which expired on November 15, but the operators refused to meet the drivers' full wage demands.

Priorities Aid for Research

The Priorities Division, Office of Production Management, has issued an order assigning a preference rating of A-5 to acquisition of the scarce materials required by manufacturers of laboratory chemicals and equipment. A previous order extended to certain accredited laboratories engaged in scientific research a preference rating of A-2, and is applicable to orders placed by them for essential materials. The new order, however, specifically aids producers of certain equipment which the laboratories require.

OPA Meeting With Car Builders

Representatives of car builders and manufacturers of specialties for railroad equipment met with representatives of the Office of Price Administration in Washington, D. C., on November 18. The meeting was under the direction of Joseph Dean, price executive of OPA's Industrial and Agricultural Machinery Section.

It was stated at offices of OPA that the meeting was an exploratory one for the purpose of getting the OPA representatives acquainted with the equipment men; to find out where the latter now stand on the matter of prices; and to propound some of OPA's philosophy with the idea of laying the groundwork for further conferences.

F. E. C. Operates New Fast Freight

The Florida East Coast inaugurated a new fast freight train, christened the "East Coast Overniter," on November 18 southbound from Jacksonville, Fla., to Miami. With an overnight schedule of ten hours for the run of 366 mi., its running time equals that of the best mail, express and passenger trains of a few years ago, and is faster than that of some present mail and express trains on the F. E. C. The "Overniter" is designed to give overnight delivery on both carload and l.c.l. freight, cutting former delivery time in half, and will afford the equivalent of through package car service from off-line points. Freight received at the road's Jacksonville depot by 4 p. m., will arrive for delivery early next morning at Miami, West Palm Beach and other principal East coast cities. Plans have been made to operate the train the year around.

Hearing Dec. 8 on Motor Vehicle Size and Weight Bill

Hearings on S. 2015, the Wheeler bill which would give the Interstate Commerce Commission regulatory authority over the sizes and weights of motor vehicles operating in interstate commerce, will open on December 8 before the Senate interstate commerce committee sub-committee headed by Senator Andrews, Democrat of Florida. As noted in the *Railway Age* of November 1, page 720, Chairman Wheeler of the committee on interstate commerce introduced the bill to carry out the recent recommendations of the I. C. C. that it be given power to hear complaints and set aside state size and weight limitations. A companion measure, H. R. 5949, has been introduced in the House by Chairman Lea of the committee on interstate and foreign commerce.

Announcement of the December 8 Senate sub-committee hearings was made by Chair man Andrews in the Senate on November 13. "This notice," he said, "is given for the convenience of many interested parties who desire to appear and be heard. The committee will convene from day to day

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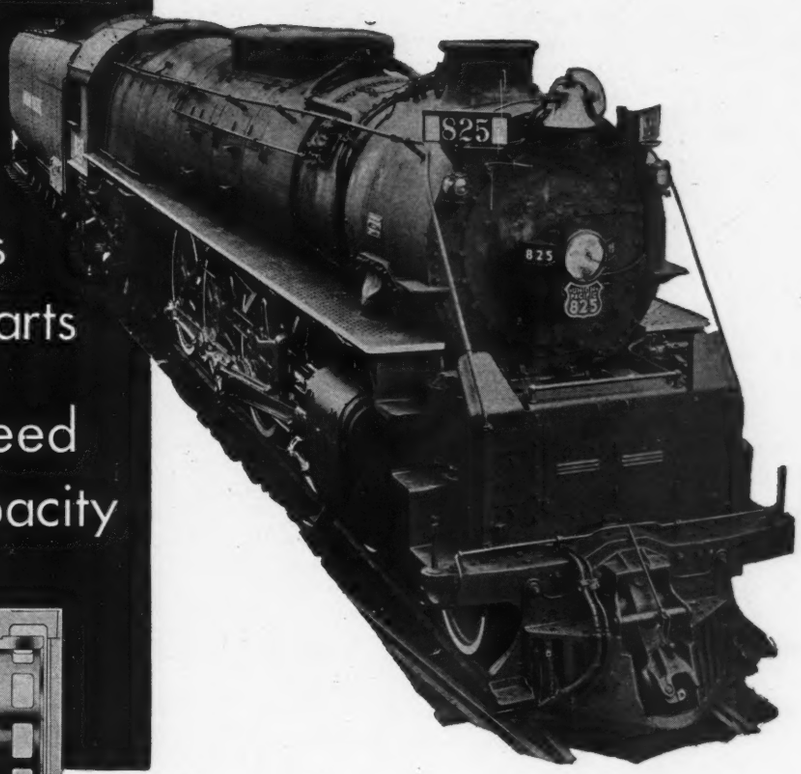

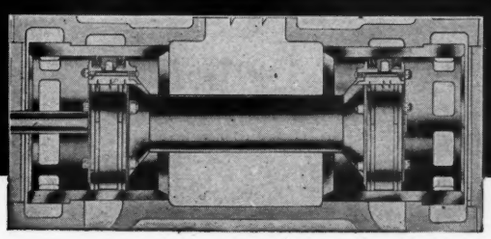

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Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
(Duplex Springs for Above
Sectional Packing)
Cylinder Snap Rings
Valve Rings All Shapes
Light Weight Valves
Cylinder Liners and Pistons
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until all interested parties have had a chance to be heard. As the correspondence from parties concerned in the various states of the union has become so voluminous, I make this statement and give this notice to every one who may be interested."

Club Meetings

The Northwest Car Men's Association will hold its next meeting on December 1 at the Midway Club at 8 p. m. F. G. Moody, superintendent car department, Northern Pacific, St. Paul, Minn., will present a paper entitled "Handling and Maintenance of Equipment in Connection with National Defense."

The Car Department Association of St. Louis will hold its election of officers and Christmas party at the Hotel DeSoto, St. Louis, Mo., on December 16 at 8 p. m. Prizes will be awarded for the best short papers presented during the year.

The Car Foremen's Association of Omaha, Council Bluffs and South Omaha Interchange will hold its next meeting on December 11 at the Chicago Great Western Club rooms, Council Bluffs, Iowa, at 1:30 p. m.

Representation of Employees

Results of recent elections in representation-of-employees cases have been announced by the National Mediation Board.

The Brotherhood of Maintenance of Way Employees has been certified as the duly designated representative of the maintenance of way employees on the Florida East Coast. On the Atlanta & West Point and the Western of Alabama the Brotherhood of Railway Clerks won the right to represent the clerical, office, station and storehouse employees.

On the Illinois Terminal the Brotherhood of Locomotive Firemen and Enginemen has won in a contest with the Brotherhood of Railroad Trainmen as to who should represent the locomotive engineers and motormen. Meanwhile the Board has certified that the National Council Railway Patrolmen's Unions, A. F. of L., has been chosen to represent the patrolmen (watchmen) in the police department of the Terminal Railroad Association of St. Louis.

Equipment Installed

Class I railroads installed 64,680 new freight cars in service in the first 10 months of 1941, according to the Association of American Railroads. New freight cars put in service in the same period last year totaled 54,791. Of the total number of new freight cars installed in the 10 months period this year, there were 34,128 box, 26,412 coal, 1,583 flat, 1,853 refrigerator, 123 stock and 581 miscellaneous cars.

New locomotives installed in service in the first 10 months of 1941 totaled 493, of which 117 were steam and 376 electric and Diesel-electric. Installed in the first 10 months last year were 320 new locomotives, of which 84 were steam and 236 electric and Diesel-electric.

Class I roads on November 1, this year, had 80,504 new freight cars on order, compared with 27,459 on the same day last year. New freight cars on order on November 1, this year, included 53,452 box, 22,169 coal, 326 stock, 2,059 flat, 1,730 refrigerator and 768 miscellaneous.

They also had 611 new locomotives on order on November 1, this year, of which 284 were steam and 327 electric and Diesel-electric. New locomotives on order on November 1, last year, totaled 196, which included 131 steam and 65 electric and Diesel-electric.

R. B. A. Dinner Attended By 1,615 Persons

A total of 1,615 representatives of railroads, supply companies and other organizations attended the thirty-third annual dinner of the Railway Business Association at the Stevens Hotel, Chicago, on November 13. The demands for reservations exceeded this number, but due to the capacity of the dining room, not all could be accommodated.

At the annual meeting of the Association held at noon on the same day, all officers and members of the executive committee and the governing board were re-elected, with the exception of H. E. Graham, assistant to the president of Jones & Laughlin Steel Corporation, who retired from the governing board. L. M. Parsons, vice-president of this company, was elected a

P. Harvey Middleton

member of the board to succeed Mr. Graham. In addition, P. Harvey Middleton, secretary and treasurer, was elected to the newly-created position of executive vice-president.

Mr. Middleton was born at Southsea, Hampshire, England, on May 17, 1882, and was educated at South Sea College. He was on the staff of the London Daily Express in 1905, and a year later was the founder and first editor of the World's Carriers. Later as a free lance writer, he contributed more than 200 articles to magazines and newspapers and in 1910 became assistant to the managing editor of the New York World. In 1913, he was appointed executive assistant of the Railway Business Association, which position he held until 1918, when he was engaged to make an economic survey of Mexico in 1919. In 1920-22, he was employed by the Guaranty Trust Company of New York to investigate economic conditions in England, France, Germany, Belgium, Holland, Austria and Italy. In 1922, he returned to the Railway Business Association as treasurer and assistant secretary. In 1936, he was appointed secretary-treasurer. Mr. Middleton is the author of several books, including Railways of Thirty Nations, Railways and the Equipment and Supply Industry, and Railways and Organized Labor.

October Operating Revenues 25.1 Per Cent Above 1940

Preliminary reports from 87 Class I railroads, representing 81.5 per cent of total operating revenues, made public November 17 by the Association of American Railroads, shows that those roads, in October, had estimated operating revenues amounting to $421,762,339, compared with $337,165,310 in the same month of 1940 and $394,791,619 in the same month of 1930. The October gross was 25.1 per cent above that for October, 1940, and 6.8 per cent above October, 1930.

Freight revenues of the 87 Class I roads in October, amounted to $357,705,192 compared with $282,044,719 in October, 1940, and $315,667,715 in October, 1930—26.8 per cent above the former and 13.3 per cent above the same month in 1930. Passenger revenues totaled $35,371,472 compared with $28,478,608 in October, 1940, and $44,811,623 in October, 1930—24.2 per cent above the former, but 21.1 per cent below the same month in 1930.

Coal Director Warns of Railroad Fuel "Substitutions"

Stating that investigations indicate that soft coal producers have been consistently abusing railroad fuel "substitution" regulations, Director Howard A. Gray of the Bituminous Coal Division of the Department of the Interior has issued a warning to the coal industry that he will insist that violations be prosecuted to the fullest extent permitted by the Coal Act.

Regulations permit code members to substitute a higher-priced coal for a lower-priced coal at the minimum price for the latter—but only as a means of relieving congested railway sidetracks at a mine to keep production from being shut down because the tracks are blocked with loaded cars of coal which cannot be sold immediately at the regular minimum price. The director stated that it appears from an investigation that "substitutions" of locomotive fuel have been made in many instances where the facts do not indicate that they were necessary as temporary emergency measures in order to continue operation of the mines.

Retires After 62 Years Continuous Service on One Job

Charles J. Cawley, station agent for the Chicago, Milwaukee, St. Paul & Pacific at Pipestone, Minn., since 1879, and the only agent the railroad has ever had at that town, will retire on December 1, after 62 years continuous service on one job, a record probably unequaled in railroad history. Mr. Cawley was honored on November 14 by a gathering of Milwaukee employees and townspeople in the city hall, attended

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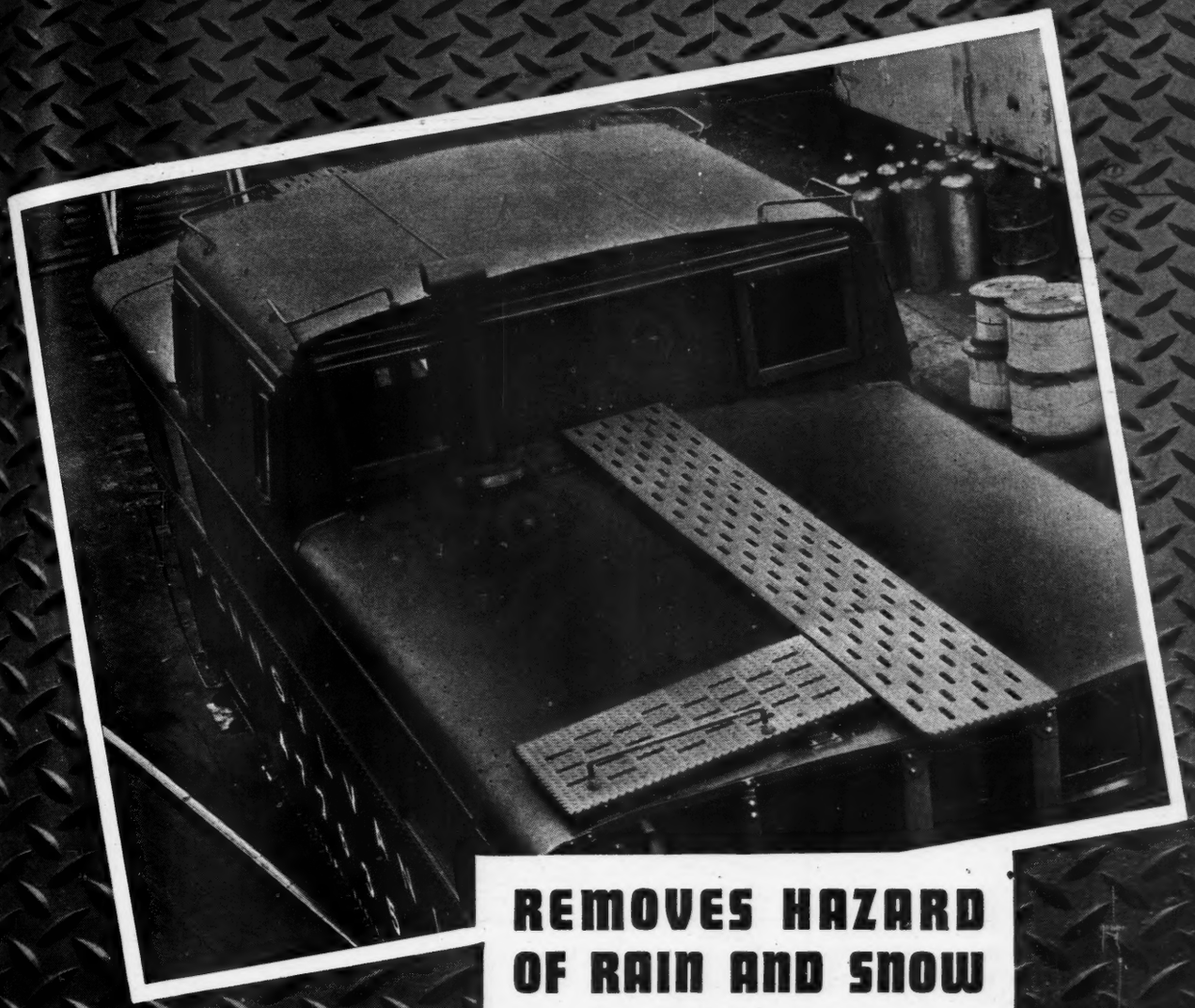

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by officers and employees of the road from Chicago, St. Paul, Minn., Minneapolis and Austin, Minn., where the division headquarters are located, and from surrounding towns.

Born in Mazomanie, Wis., on September 12, 1858, Mr. Cawley learned telegraphy at an early age. His first job was agent and operator at Schofield, Wis. In 1879 he went with the Southern Minnesota (now part of the Milwaukee system), as agent at Lakefield, Minn. and on November 25, 1879, the day after the construction train reached Pipestone, Mr. Cawley was transferred to that point, where he has remained since.

Missouri Pacific Motor Certificate Condition Modified

The Interstate Commerce Commission, Division 5, has modified a prior-or-subsequent-movement-by-rail condition which it had previously attached to a certificate authorizing the Missouri Pacific to conduct common-carrier trucking operations in coordination with rail service between Kansas City, Mo., and St. Joseph and certain points in Kansas. The condition, the most restrictive of those imposed on highway operations of railroads, has previously been modified in other cases; it stipulates that shipments transported in the highway service "shall be limited to those which move on a through bill of lading covering, in addition to movement by truck, a prior or subsequent movement by rail."

In the present M. P. case the commission's modification takes the form of eliminating the condition and substituting one stipulating that "no shipments shall be transported by applicant as a common carrier by motor vehicle between Kansas City, Mo., and St. Joseph." In other words freight between those two points must continue to move by rail, but any other traffic on the route can be handled by truck without giving it a ride on the railroad also.

Lilienthal Knocks Interterritorial Rates in Texas Speech

Charge that inter-territorial freight rates are a major barrier to equality of opportunity between regions was made on November 14 by David E. Lilienthal, chairman of the board of the Tennessee Valley Authority, before the Business Conference on Transportation held by the University of Texas at Austin, Tex. This system of rates, he said, is so constructed that it prevents Texas and the Southwest, the Southeast and the regions of the Interior West from enjoying the full benefit of their natural endowments of resources and human ingenuity.

"It has handicapped their efforts to engage in that measure of manufacturing of their raw materials which is economically sound. At the same time it has stimulated the export in raw or semifinished form of those natural resources. Thus, these regions have become predominantly raw material areas, whereas the Northeast, having an advantage by reason of inter-territorial freight rates, has become predominantly industrialized. Existing regional differences in charges for transportation service are not justified by regional differences in the cost of providing the service. I am confident that the class rate investigation of the Interstate Commerce Commission in which state governors, state regulatory commissions, attorney and university economists from a widespread area are working together will bring out something as near the whole truth as it is possible to reach in a subject as complicated as freight rates and the economics of the railroad industry."

Behling Named Study Director for Transport Board

Dr. Burton N. Behling, economic and statistical analyst for the Interstate Commerce Commission's Bureau of Statistics, has been selected by the Board of Investigation and Research created by the Transportation Act of 1940 to be director of its researches into public aids to carriers. Previously the Board had appointed Arthur M. Stevens as director of its researches into the relative economy and fitness of carriers by rail, motor and water, while a director for the study of the extent to which taxes are imposed upon carriers is yet to be named.

Dr. Behling is a graduate of Lawrence College in Wisconsin and did his advanced work in economics at the University of Illinois, where he received an A.M. degree in 1929 and a Ph.D. in 1931. From 1931 until 1939 he taught economics at the University of Illinois, and since February, 1939, he has held his aforementioned position of economic and statistical analyst with the I. C. C. Bureau of Statistics. Dr. Behling has contributed to various economic journals, and is also the author of "Competition and Monopoly in Public Utility Industries," published by the University of Illinois Press in 1938, and "Railroad Coordination and Consolidation—A Review of Estimated Economies," issued by the I. C. C. in 1940. The study board's announcement also said that Dr. Behling is a contributor to the National Resources Planning Board's transportation study which has not yet been released.

* * *

Sketches of Active Operating Employees Feature Special Advertising Placed By the New York, New Haven & Hartford In Newspapers Along Its Lines Advertising Railroad Services for Thanksgiving

Southern Wins in Acme Case

The United States circuit court of appeals for the District of Columbia handed down a decision last week holding that a freight forwarder occupying business space in a railroad's freight station is not entitled to allowances deducted by the railroad from transportation charges on shipments made by consignors who furnish their own pick-up service in lieu of availing themselves of service offered by the carrier.

The case arose when Acme Fast Freight, Inc., a freight forwarder which was occupying a part of the Southern's freight house in High Point, N. C., contended that the carrier should make an allowance to it for pick-up service despite the fact that it actually performed no pick-up work. The Southern refused and Acme brought suit in the federal district court for the District of Columbia. In that court the Southern lost the case, but appealed it to the circuit court of appeals for the District of Columbia.

"If the railroad," wrote the court, "had offered alternative rates, a lower rate for shipments delivered to it at its station and a higher rate for shipments delivered to it elsewhere, the forwarder would probably have been entitled to the lower rate. But that is not the case. Instead, the railroad offered to perform a pick-up service, authorized shippers to perform this service in its behalf, and promised an allowance to those who did so.

"In the circumstances of this case no one performed or could perform the transportation service for which the allowance was offered for the simple reason that the consignor's place of business was in the carrier's freight depot. . . . The fact that the railroad did not perform the service is immaterial. Since the forwarder did not perform it, payment of the allowance to the forwarder is neither required nor permitted by any provision of the published

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tariff to which tariff the carrier must conform."

Freight Car Loading

Carloading figures for the week ended November 15 were not available at the time this issue went to press.

As reported in last week's issue, loadings of revenue freight for the week ended November 8 totaled 873,585 cars, and the summary for that week, compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For Week Ended Saturday, November 8

Districts	1941	1940	1939
Eastern	180,280	162,159	159,384
Allegheny	182,552	163,468	165,859
Pocahontas	57,373	46,403	54,296
Southern	122,549	108,961	107,852
Northwestern ..	135,570	119,481	117,003
Central Western	135,838	122,410	121,818
Southwestern ..	59,423	55,436	55,376
Total Western Districts	330,831	297,327	294,197
Total All Roads.	873,585	778,318	781,588
Commodities			
Grain and grain products	35,532	33,815	37,697
Live stock	18,766	16,576	17,650
Coal	164,568	135,083	151,432
Coke	13,437	11,817	11,267
Forest products	42,455	38,799	35,823
Ore	56,945	55,667	55,876
Merchandise l.c.l.	158,966	156,337	156,816
Miscellaneous ..	382,916	330,224	315,027
November 8 ...	873,585	778,318	781,588
November 1 ...	894,739	794,797	801,108
October 25	913,605	837,657	829,358
October 18	922,884	813,909	856,289
October 11	903,877	811,906	839,952
Cumulative Total, 45 Weeks ...	36,689,690	31,432,631	29,224,341

In Canada.—Carloadings for the week ended November 8 totaled 69,572, as compared with 72,936 in the previous week and 59,492 last year, according to the tabulation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Nov. 8, 1941	69,572	32,616
Nov. 1, 1941	72,936	33,136
Oct. 25, 1941	72,944	33,922
Nov. 9, 1940	59,492	26,524
Cumulative Totals for Canada:		
Nov. 8, 1941	2,753,031	1,340,300
Nov. 9, 1940	2,415,922	1,107,536
Nov. 11, 1939	2,194,713	960,889

R. B. A. Publishes Book on Labor

Railways and Organized Labor has just been published by the Railway Business Association and is being sent to members of the Association, the press and other organizations. In the 131 pages of the book, the author, P. Harvey Middleton, executive vice-president of the Association, has compiled an historical narrative of the labor movement from 1803 to the report of the 1941 Emergency Board, while Harry A. Wheeler, president of the Association, has included an introduction which portrays his impressions.

"Public sentiment," Mr. Wheeler writes, "has been more often with labor than against it as the years have brought higher standards of living to all. But the danger is that the workers of the country may come to believe that they are the masters of the situation and can dictate their relation to every other economic interest. If moderate counsel does not prevail in the field of organized labor, it may invite a public reaction that will demand curbs and controls to halt the headlong pace which comes so often with power intoxication. Each day seems to present new evidences that labor leadership is giving little or no consideration toward either those capital interests that provide the work opportunity, or the welfare of the general public, which is slow to anger, but when aroused can become a consuming fire."

I. C. C. Approves Plan for F. J. & H.

The capitalization of the Fonda, Johnstown & Gloversville, including loans and bills payable, will be reduced from $9,734,123 to $2,414,755, and the fixed interest charges will be pared down from $137,820 to $26,163 under a final plan of reorganization issued this week by Division 4 of the Interstate Commerce Commission. At the same time Division 4 found that the equities of the holders of the common and preferred stock of the debtor, and the general claims not entitled to priority, have no value and no provision is made for them in the plan.

Under the plan, the effective date of which is July 1, 1941, the capitalization and charges would be as follows:

		Annual Requirements			
		Fixed		Contingent	
	Principal Amount	Interest	Maturities	Sinking Fund	Interest	Other Capital Requirements
Collateral Note	$36,875	$1,843.75	$3,687.50			
1st Mortgage Bonds	608,006	24,320.24		$6,080.06		
Discretionary capital fund						$10,000.00
2nd Mortgage Bonds	604,874				$27,219.33	
Total debt	$1,249,755	$26,163.99	$3,687.50	$6,080.06	$27,219.33	$10,000.00
No par stock stated at $25	1,165,000					
Total capitalization	2,414.755					

The plan further provides that the new bonds and stock shall be distributed to the holders of outstanding securities according to the following table, the amounts stated being the amounts that shall be exchanged for each $1,000 bond and in the case of the Johnstown, Gloversville & Kingsboro Horse stock, for each share of $100 par value:

	1st Mort. Bonds	2nd Mort. Bonds	No Par stock at $25	Total	Unsatisfied claim
Gen. ref. bonds	$750.00	$410.00		$1,160.00	
1st consol. gen. ref. bonds (a).....	25.00	65.00	$200.00	290.00	$993.55
J. G. & K. H. bonds	646.00	354.00		1,000.00	
J. G. & K H. stock	32.30	17.70	50.00	100.00	

(a) In addition, the holders of $244,000 principal amount of unextended bonds would receive from funds deposited with mortgage trustee $10 in cash in respect of each interest coupon due November 1, 1931 and May 1, 1932.

The report points out that the Johnstown, Gloversville & Kingsboro Horse, lessor, has not filed a petition for reorganization under section 77 of the Bankruptcy Act. The provision made in the plan for this road's inclusion in reorganization and merger with the reorganized Fonda, Johnstown & Gloversville is subject to acceptance by substantially all of its security holders.

The report also provides that the plan shall be carried out under the supervision and control of the court, by three reorganization managers, one to be appointed by the protective committee for the debtor's first consolidated general refunding bonds, one by the savings banks, holders of general refunding bonds, as a group, and one by the court.

Urges Reduction of Highway and Waterway Expenditures

Complete elimination of federal highway expenditures for 1944 and drastic reductions in appropriations for river and harbor improvement work was recommended this week by Secretary of the Treasury Morgenthau to the Joint Congressional Committee on Non-Essential Expenditures in an effort to reduce the non-defense expenditures of the government.

While admitting that the federal government had obligated itself to spend money for aid to state road programs in 1942 and 1943, Mr. Morgenthau suggested that the $139,000,000 which would ordinarily be earmarked for federal aid in the fiscal year 1944 be entirely eliminated. Inasmuch as the money spent by the government is matched by the states, he continued, a reduction in the federal road expenditures will most likely bring desired reduction in highway expenditures by the states.

Turning to river and harbor and flood control work, Mr. Morgenthau declared that "it is recognized that certain river and harbor, flood control, and soil erosion work must continue in the interest of the lives and safety of our people. But all projects which are not vital from this standpoint or necessary for definite defense purposes should be reexamined. Work on all projects of this character which can be delayed or postponed should be prohibited and funds heretofore appropriated should be cancelled." For the fiscal year 1942, he estimated that some $200,000,000 would be spent for river and harbor work and flood control.

Ceiling Prices for Low-Alloy Steel Castings

Prices for carbon and low-alloy steel castings, including "railroad specialties," are prevented from going above approximately current levels, through the issuance of a price schedule on November 14 by Leon Henderson, administrator, Office of

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Price Administration. The schedule, effective November 15, provides that the maximum prices shall be those that prevailed on July 15, 1941.

Except for railroad specialties, these maximum prices will approximate those contained in the "Comprehensive Report of Price Lists of Miscellaneous Castings," issued by the Steel Founders' Society of America for the third quarter of 1941.

Any miscellaneous castings for which prices are not determined by the "Comprehensive Report" are to sell at not more than the July 15 prices, according to the schedule. Special provision is made for pricing of castings not previously produced by a manufacturer. Roughly, the castings involved fall into two groups: Railroad specialties and miscellaneous. The first includes side-frames, bolsters, yokes and couplers, used in the running gear of railroad freight and passenger cars. The miscellaneous castings field takes in all manner of products. Steel scrap is the principal raw material in the production of carbon and low-alloy castings.

The new schedule provides that applications may be made to OPA to complete outstanding contracts at higher than ceiling prices in certain special instances. Sworn affirmations of compliance are required to be filed monthly.

Not Easy to Sell Sleepers to RRs

(*Continued from page 889*)

November 18, in reply to Mr. Hamilton's question that his road could feasibly and economically operate its own sleeping cars, that in fact it does now operate combination coach-tourist sleeping cars over the Denver & Salt Lake between Denver, Colo., and Craig on a daily round-trip. These cars it purchased from the Pullman Company and has re-equipped and re-arranged them for operation and servicing by its own forces. He added that through interline service presents another problem, and can best be handled by unified Pullman service. The witness was also asked whether he thought it feasible for the railroad to own a portion of its sleeping cars and have Pullman service them. He replied that the D. & R. G. W. has just placed in service two 2-car self-powered trains between Denver and Salt Lake City, Utah, (the "Prospectors") which were built by the Budd Manufacturing Company and owned by the railroad. The sleeping accommodations on the trains are serviced by the Pullman Company under a special and separate agreement covering certain standard expense accounts such as linen, attendant, etc., which the road pays for on per-car basis plus about 20 per cent for overhead and profit. Next witness was E. B. Meissner, president and general manager, St. Louis Car Company, who testified that his company has never manufactured sleeping cars because it had never received an order therefor.

Attorney Hamilton, in questioning his third witness of the day—George Whitney, officer of J. P. Morgan & Co., a director of Pullman, Inc., and the New York Central and a member of the executive committee of the latter—sought to reveal a community of interest among Pullman, the New York Central and the Pennsylvania represented by interlocking directorates and common banking relations. In this connection he enumerated a long list of railroads, a majority of which the witness stated to be present clients of J. P. Morgan. There followed a long discussion of negotiations in connection with the absorption of the Standard Steel Car Company by Pullman, Inc., in 1929 in which Mr. Whitney participated. Here the government counsel attempted to record the fact that the Mellon group (which controlled Standard Steel Car) was also "interested" in the Pennsylvania Railroad.

Mr. Hamilton then directed his examination to that period when the New York Central and Pennsylvania were considering the purchase of new equipment for the "Twentieth Century" and "Broadway" limiteds and asked Mr. Whitney whether he "was worried" at that time that President F. E. Williamson of the Central was going to buy cars from the Budd company. The witness replied that he wasn't afraid that Mr. Williamson was going to buy the cars from Budd but rather that he did not understand the situation as between the relative merits of cars built by Budd and Pullman. As for Mr. Williamson's considering the purchase of Budd equipment, he said, it was his "obvious duty" as a railroad officer to investigate the possibilities of all types of cars. Government counsel then introduced documents allegedly describing meetings in the fall of 1938 of officers of the two railroads and Mr. Whitney during which Mr. Williamson was reported to have questioned the economic justification of large expenditures for lightweight equipment additional to the 52 cars already purchased from Pullman-Standard. Asked his opinion why the two roads purchased the new cars at the same time, Mr. Whitney asserted that "the Pennsylvania had already ordered the cars, so the New York Central entered in to keep in the swim." At the close of this testimony, Ralph Shaw, a Pullman attorney, moved that the entire examination and testimony of Mr. Whitney be stricken out as not germane to the issues at hand.

Final government witness was Henry S. Sturgis, vice-president, First National Bank of New York, and a director of Pullman. He testified that when the New York Central was considering the purchase of lightweight cars, he "was not sure that Pullman was on the right track." Hence he made investigations of the Pullman type of lightweight unit as compared with that of other manufacturers and came to the conclusion that "Pullman was right." Asked whether Pullman encouraged the use of new lightweight equipment or not, the witness replied by analogy to air-conditioning programs, which, he asserted, caught on "like a prairie fire." He was then afraid that it would go too far and fast—beyond Pullman's ability to finance it. Mr. Sturgis also answered a question about Pullman's attitude toward cars built by a competitor by saying that he had it from Pullman management that they would not service sleeping cars made by other companies, because to do so would destroy the fundamentals of the Pullman car pool.

Refuse to Review Chi. Board Case

(*Continued from page 888*)

minal Company to the circuit court of appeals for the District of Columbia.

"The issue," declared Justice Rutledge, "is whether a carrier, which has been unsuccessful before the Board, can maintain a suit for a declaratory judgment of rights under the original collective agreement during the two years which the Act allows for the employees' enforcement suit." He went on to say in his prefatory statement that the recent United States Supreme Court decision in the case of Moore v. Illinois Central, 312 U. S. 630, has put beside the point much of the argument in the instant case. That case, he went on, held that the Railway Labor Act does not preclude an employee from bringing a suit for damages for alleged wrongful discharge contrary to a collective agreement.

Conversely, he asserted later in his majority opinion that the doctrine of Moore v. Illinois would also permit the carrier to institute an independent civil suit before the administrative proceedings of the Railway Labor Act had begun to function.

In such a suit as this, the majority declared, the Railway Labor Act gives the employee "definite and substantial advantages." "Whether the judgment were in plaintiff's favor or otherwise," the opinion continues, "allowing the suit to be maintained would deprive employees of the special advantages which the Act confers upon them in the enforcement suit. We do not think that Congress intended the Board's awards to be reviewable in this manner. The Railway Labor Act makes no provision for review as such. But it does set forth a definite and special scheme for securing judicial determination that the award is or is not in accordance with the legal rights of the parties. If the scheme is adequate constitutionally, as we think it is, we do not believe Congress intended that it should be circumvented by free resort to other forms of judicial review or determination de novo of the merits of the controversy."

The method of review provided by the Act was intended to be exclusive, writes Justice Rutledge, and Congress intended these advantages to mean something. He goes on to say that in his opinion they will mean nothing if such a suit as this can be maintained. The Act, he feels, recognizes the unequal financial position of the litigants when a railway laborer pits his strength against his employer's in court.

"All these advantages," the opinion notes, "choice of venue, exemptions from payment of costs and recovery of attorney's fees if successful, are intended to make less unequal than in ordinary litigation the contest between employee and carrier over work and the terms on which it is done. In equalizing the struggle somewhat, Congress has recognized that justice too often is blind to financial inequality between the parties in litigation, especially when they

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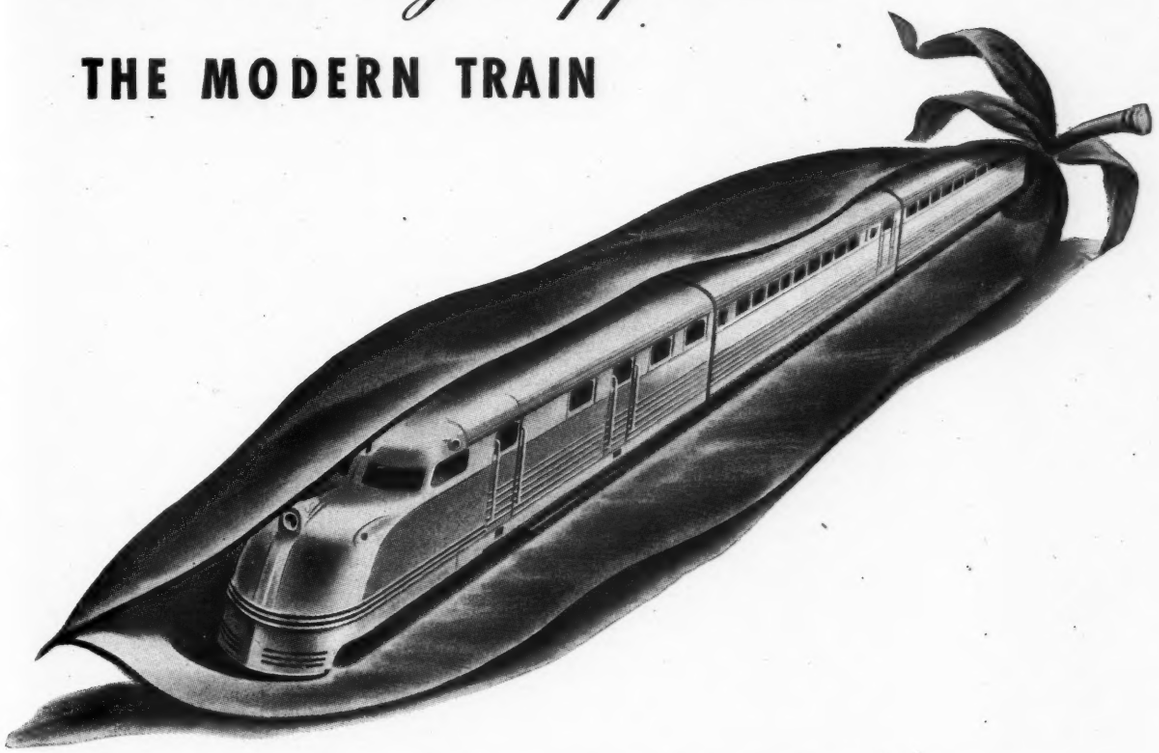
This no longer applies to

THE MODERN TRAIN



IN the days B.A.C. (Before Air Conditioning) the interiors of even the crack trains were alike as peas in a pod.

Decorative furnishings were dull and workaday—chosen chiefly for their ability to withstand gritty wear and to hide smudgy dirt.

But today's designers are free to choose fabrics, colors and patterns as gaily distinctive as any that grace the modern living room—with the result that the interiors of our modern trains are far more individual, more inviting, more comfortable.

Collins & Aikman Corporation has worked closely with American railroads and designers in the styling and creation of these modern transportation fabrics.

With our background of a hundred years' experience — and the inspiration of our modern viewpoint—we stand ready to collaborate with any railroad engaged in the decoration of its car interiors—either new or modernized.

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are employer and employee, and has determined that it shall not be entirely so in these disputes."

As a further justification of the procedure under the Act, the majority observes that only the employee may use the record of the Board as prima facie evidence in his suit to enforce a Board award, thus giving him a distinct advantage over the carrier.

After declaring that the carrier had permitted the Board to assert jurisdiction and had taken part in proceedings before it, the majority goes on to assert that "if a carrier can have full advantage of the administrative proceeding on the chance that it will be successful, yet when the event is otherwise relieve itself of all its disadvantages, circumventing the employee's rights by judicial proceedings in which they are not available, the Railway Labor Act will have become, finally, a dead letter. The Board's awards would amount to nothing more than inocuous advice to the disputants, like that provided for under the Railway Labor Act of 1920, or mere proposals for a new agreement, having not even the force of an offer in the law of contracts. If that is the result of the Act, and of an award, Congress went to much ado about nothing."

Dismissing the argument that the Board is merely a private voluntary negotiator, the majority says that a reading of the statute immediately reveals that all of its powers are definitely positive and are clothed with the full force and majesty of the law.

The carriers had attacked the constitutionality of the procedure under the Adjustment Board. The opinion of Justice Rutledge disposes of this contention that the carriers are deprived of their rights without due process of law by saying that the employer has very definite rights under the law and that the Board has no power to enforce its own awards. Also, the carriers argued that they had no corresponding rights to sue to contest awards. The court feels, however, that such an argument might just as well be made the other way, for it says that if an employee is unsuccessful before the Board, he, likewise, cannot sue to contest the Board's decision.

Taking up the railroads' position that the employees refuse to sue to enforce awards, but threaten strike action, the court is not impressed, saying that strikes are not easily called and that the Act makes a definite provision for strikes, although to date none have been called. All in all, the majority think that the carriers and employees may prefer the Board's decisions to long legal wrangling.

Recognizing that the carriers may be forced into the predicament of having to pay two sets of employees for the work of only one, the court observes that such may often be the case for no legal system has as yet been devised which will prevent a person from contracting with two different parties regarding the same subject matter.

In his dissenting opinion, Justice Stephens wrote that he found no language in the Declaratory Judgments Act which expressly excepted this type of case. Also, in his reading of the legislative history of the Railway Labor Act, he could find no evidence which lead him to believe that the procedure for review set up therein was intended by Congress to be exclusive.

"In the instant case," he continued, taking issue with his colleagues' contention that the Board's decisions should have the full force of law, "there were no pleadings joining issue in the judicial sense of the term, but simply an ex parte submission by each side without reference to submission of the other, no witnesses were called, no evidence received except the ex parte submission, if they may be called evidence, and these were without the right of cross-examination; no record was made of the proceedings. The findings of the Board cannot properly be called findings of fact. The procedure does not satisfy the definition of quasi-judicial procedure as outlined by the Supreme Court of the United States in Morgan v. U. S., 298 U. S. 468."

He also recognized the dilemma of the carriers in that on the one hand if they refuse to abide by the ruling of the Board, they will have to pay for work done and not done, while on the other hand, if they accede to the Board's decision, they risk either a strike by the employees who are now doing the work or a suit for breach of contract.

Justice Stephens also devotes a large part of his dissenting opinion to an examination of the legislative history of both the Declaratory Judgments Act and the Railway Labor Act, and concludes that neither Act precludes the railroads from asking for a judicial review of the Board's decisions.

Equipment and Supplies

LOCOMOTIVES

THE PENNSYLVANIA is reported to be inquiring for one Diesel-electric passenger locomotive of 4,000 hp.

THE BELT RAILWAY OF CHICAGO has ordered one Diesel-electric switching locomotive of 1,000 hp. from the Baldwin Locomotive Works.

THE WELDON SPRINGS ORDNANCE PLANT, Weldon Springs, Mo., has ordered two 45-ton Diesel-electric locomotives from the General Electric Company.

THE LONE STAR DEFENSE CORPORATION, Texarkana, Ark., has ordered two 65-ton Diesel-electric locomotives from the General Electric Company.

THE UNITED STATES NAVY DEPARTMENT, Bureau of Supplies and Accounts, is inquiring for one Diesel-electric locomotive for delivery to South Boston, Mass.—schedule 9415.

THE MISSOURI PACIFIC and the CHICAGO, BURLINGTON & QUINCY have each placed an order with the Franklin Railway Supply Company for one set of locomotive steam distribution equipment. On the Missouri Pacific, this equipment will be applied in the conversion of a Pacific-type locomotive, originally designed with three cylinders and piston-type valves, and which will be rebuilt into a two-cylinder locomotive with poppet valves. On the C. B. & Q., the new equipment will be applied to a 4-8-4 type locomotive and involve the application of a new front section of bed casting from the center line of the first pedestal out to the front bumper, including the cylinders.

FREIGHT CARS

THE ALUMINUM COMPANY OF AMERICA is inquiring for from 100 to 200 hopper cars of 70 tons' capacity.

THE MEXICO NORTHWESTERN is inquiring for 100 steel-sheathed box cars of 50 tons' capacity.

THE PITTSBURGH & WEST VIRGINIA has ordered five caboose cars from the Bethlehem Steel Company.

THE CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC has ordered five gondola cars of 70 tons' capacity from the Bethlehem Steel Company.

THE UNITED STATES NAVY DEPARTMENT, Bureau of Supplies and Accounts, is inviting bids under schedule 9470 for ten 40½-ft. steel-sheathed box cars of 50 tons' capacity and 15 steel underframe flat cars of 50 tons' capacity for delivery to the naval supply depot at Bayonne, N. J.

SIGNALING

THE NEW YORK, NEW HAVEN & HARTFORD has placed an order with the Union Switch & Signal Co. for materials for a type-F all-relay electric interlocking at Providence, R. I., in connection with simplifications and improvements in the track layout to expedite traffic. The two existing interlockings at Promenade Street and Orme Street will be consolidated and controlled from Promenade Street tower, where a new desk-type machine will be installed, the vertical panel of which will carry an illuminated model of the track layout, along with 50 working levers, two spare levers and 20 spare spaces. The order includes new high and dwarf style H-5 searchlight signals, style M-2 110-volt d-c switch movements, and factory-wired tower relay racks and outside housings, equipped with plug-type relays. Installation will be made by the regular forces of the railroad.

Supply Trade

OBITUARY

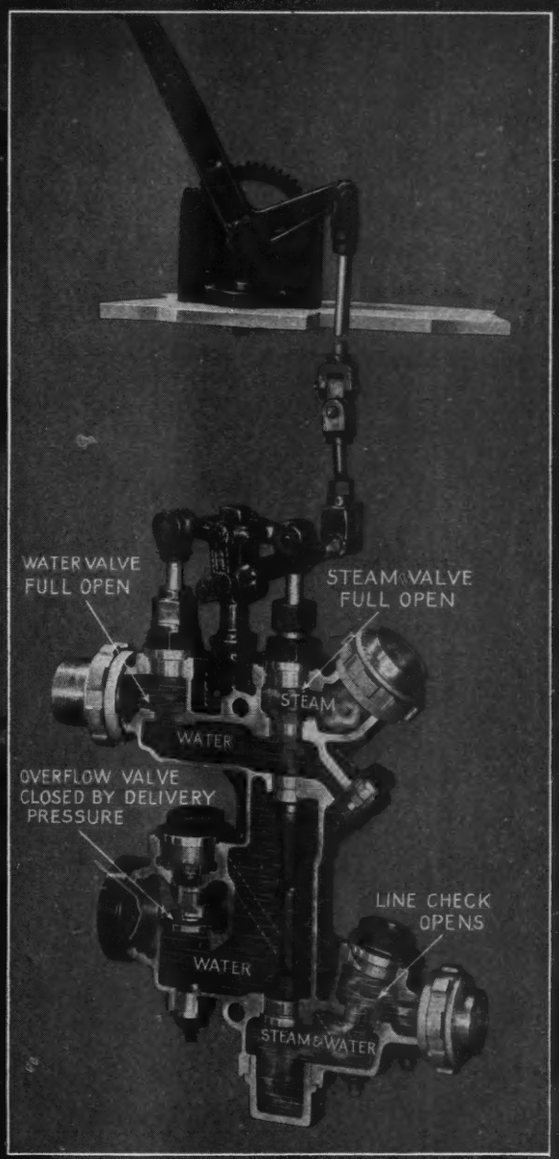
Albert Pack, chairman of the board of the Continental Roll & Steel Foundry Company and the Detroit Seamless Steel Tube Company, died suddenly of a heart attack in his hotel room in Chicago on November 15.

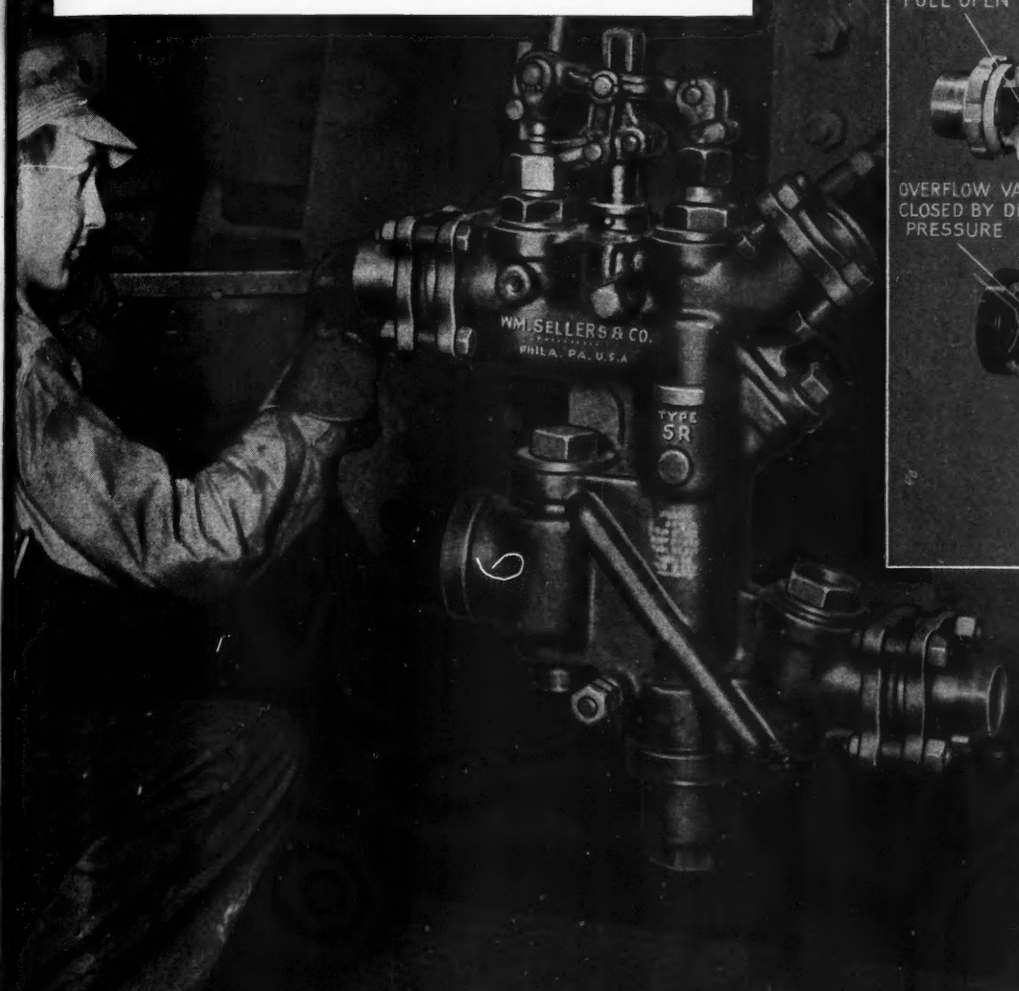
Continued on next left-hand page

SELLERS TYPE "S" INJECTOR

Ten Reasons Why Sellers Type "S" Injectors are replacing other types

1. Started, stopped and regulated by one lever.
2. Requires no steam starting valve in cab.
3. May be located high above rail hazards.
4. Drains water tank completely when necessary.
5. Prevents waste of water while feeding.
6. Reduces risk of boiler failure.
7. Lifting as well as non-lifting.
8. Effects a substantial saving.
9. Will not permit scale formation.
10. Is dependable and well-liked by engine crews.





WILLIAM SELLERS & CO., INCORPORATED, 1600 HAMILTON ST., PHILADELPHIA, PA.

FOUNDED SELLERS 1848

Sellers

Financial

BOSTON & MAINE.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a portion of its Dover branch extending in a southerly direction from Sawyer, N. H., to the end of the line at Dover Point, 3.3 miles.

BOSTON & MAINE.—*Abandonment.*—This company would be authorized to abandon a line extending from Hollis Depot, N. H., to Nashua, 4.6 miles, but would be denied authority to abandon the remainder of the line from Pepperell, N. H., to Hollis Depot, 3.1 miles, if Division 4 of the Interstate Commerce Commission adopts a recommended report of its Examiner R. Romero.

BRIMSTONE.—*Stock.*—This newly-organized company has asked the Interstate Commerce Commission for authority to issue 1,500 shares of capital stock of $100 par value, the proceeds to be used to purchase and operate a 16-mile line in Scott County, Tenn.

CENTRAL OF GEORGIA.—*Appointed co-trustee.*—Merrel P. Callaway, a vice-president of the Guaranty Trust Company, New York, has been appointed a co-trustee of this road by Federal District Judge A. B. Lovett, Savannah, Ga., to succeed himself. Judge Lovett resigned as co-trustee several weeks ago to accept appointment to the federal bench.

CHESAPEAKE & OHIO.—*C. & E. I. Stock Sale.*—This road, on November 6, sold 67,484 shares of no-par common stock of the Chicago & Eastern Illinois to Hallgarten & Co. of New York on a bid of $71,735, or approximately $1.06 per share. The stock sold was new common issued to the Chesapeake & Ohio under the recent reorganization of the road for a higher class of security it held in the old company.

CHICAGO & NORTH WESTERN.—*Abandonment.*—This company would be authorized to abandon that portion of a branch line extending from Sycamore, Ill., northerly to Caledonia, 27.8 miles, if Division 4 of the Interstate Commerce Commission adopts a recommended order of its Examiner R. Romero.

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—*Equipment Trust Certificates.*—This road awarded, on November 13, a $1,210,000 issue of equipment trust certificates to Halsey, Stuart & Co., Chicago, on a bid of 100.019 for 2⅜s. The certificates, which mature December 1, 1942, to 1951, inclusive, were re-offered publicly the following day at prices to yield from 0.60 to 2.65 per cent.

ERIE.—*Reorganization.*—Peter S. Duryee, vice-president, Chase National Bank, New York, was named reorganization trustee for the New Jersey & New York, a subsidiary of the Erie, on November 17, by Federal Judge Guy L. Fake at Newark, N. J.

KANSAS CITY SOUTHERN.—*Notes of the Fort Smith & Van Buren.*—The Fort Smith & Van Buren has been authorized by Division 4 of the Interstate Commerce Commission to issue a secured promissory note or notes in the aggregate face amount of $130,000, to be payable to the Kansas City Southern in liquidation of existing indebtedness. Details of the note issue were given in the *Railway Age* of November 8, page 764.

MISSOURI PACIFIC.—*Reorganization.*—J. W. Stedman, chairman of the protective committee for first and refunding bonds of this road has written a letter to bondholders of this and other issues urging that they accept the reorganization plan which is to be voted on November 19. The letter is an answer to that written by J. S. Pyeatt, chairman of the board of the railroad, urging bondholders to reject the plan. Mr. Stedman wrote in part:

"Mr. Pyeatt's letter is not disinterested advice for the benefit of the first and refunding bondholders but is an attempt to upset the plan for the benefit of Alleghany Corporation, the owner of a majority of the common stock of the old (now bankrupt) Missouri Pacific Railroad Company, and of a substantial amount of its unsecured convertible debentures.

"The Missouri Pacific Railroad Company on whose letterhead the communication was written is not the present owner and operator of the properties known as the Missouri Pacific railroad, and has not been such since 1933, at which time the title to the properties passed to the trustees in bankruptcy, and the board of directors, of which Mr. Pyeatt is chairman, then ceased to have control of the railroad's property or its operation.

"The bankrupt company which addressed this solicitation to you, therefore, is merely a corporate shell, owning no property or assets and representing only the interests of the stockholders who elect its officials. The majority of its common stock is owned by Alleghany Corporation, and Mr. Pyeatt, its nominee, is not and never has been an operating officer of the railroad itself.

"Alleghany Corporation, through its domination of the bankrupt company, has fought the adoption of this reorganization plan by every means within its power before the Interstate Commerce Commission and the United States District Court. It has been defeated on every point, and the old Missouri Pacific stock which it owns has been held worthless by both those tribunals. Its stock having thus been found to be of no value, it has been denied the right to vote upon the plan of reorganization and Mr. Pyeatt's letter is merely an endeavor to upset the plan in the hope of later improving the treatment accorded the Alleghany holdings."

J. S. Pyeatt made public a letter on November 18 from Robert R. Young, chairman of Alleghany Corporation, charging that the Stedman letter was misleading in a number of respects and reiterating the view of Mr. Pyeatt that tax losses are the grounds upon which the road's management opposes the plan of reorganization. Alleghany's opposition to the plan, he declared, is based upon a desire to protect its investment in stocks and bonds of the road and not in future control of the property.

NEW YORK, CHICAGO & ST. LOUIS.—*Note Redemption.*—The board of directors of this road, on November 18, authorized the redemption on December 19, of $16,000,000 of ten-year, 4 per cent collateral trust notes, due August 1, 1946. Notes will be redeemed at 101½ plus accrued interest.

RAILWAY EXPRESS AGENCY.—*Promissory Notes.*—This company has asked the Interstate Commerce Commission for authority to issue 149 promissory notes, each in the amount of $2,434. The first note would be payable October 1, 1941, the second November 1, 1941, and one would mature on the first of each month thereafter until all had been paid. The proceeds of the notes will be used, together with other funds, to purchase and erect a garage in Chicago, Ill., to house all the company's motor vehicles. The company will pay $110,000 for the land and $292,500 for the building. The petition goes on to point out that at present the company does not have sufficient space to house all of its vehicles, having to keep some of them on the streets and in various garages scattered all over the city, and it feels that one central garage will simplify its operations and save money in depreciation on the equipment.

SEABOARD AIR LINE.—*Protective Committee for the Tampa Northern.*—Holding that the Tampa Northern is not a party to receivership proceedings involving this company, Division 4 of the Interstate Commerce Commission has denied a petition of a group of bondholders of the Tampa Northern headed by George C. Thomas, asking for authority to solicit deposits of Tampa Northern first mortgage bonds and to represent and act for such holders in the Seaboard receivership proceedings. A petition asking for a section 77 reorganization of the Tampa Northern is now pending in the United States District Court for the Southern District of Florida, but Division 4 takes the position that it is without authority to act on the protective committee's petition until the court has taken action on the bankruptcy petition.

SUMPTER VALLEY.—*Bonds.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to extend from January 1, 1942, to January 1, 1952, the date of maturity of $418,000 of its first mortgage six per cent bonds, with the interest rate remaining unchanged during the extended period.

TEXAS & PACIFIC.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon and dismantle a line extending from Mingus, Tex., to Thurber, 2.9 miles.

WESTERN PACIFIC.—*Extension of Trustees' Certificates.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to extend from December 1, 1941, to December 1, 1942, the date of maturity of $9,850,000 of trustees certificates, to bear interest during the extended period at a rate of four per cent. At the same time Division 4 approved the extension of the time of payment for a period ending not later than December 1, 1942, of loans by the Reconstruction Finance Corporation to this company in the amount of $9,850,000, maturing December 1, 1941. The loans are secured by the above mentioned trustees' certificates.

Average Prices of Stocks and Bonds

	Nov. 18	Last week	Last year
Average price of 20 representative railway stocks..	28.03	27.94	31.16
Average price of 20 representative railway bonds..	64.41	64.83	60.96

Dividends Declared

Alabama Great Southern.—Preferred and Ordinary, $6.00, both payable December 23 to holders of record November 29.

Illinois Central (Leased Lines).—$2.00, semi-annually, payable January 1, 1942, to holders of record December 11.

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Railway Officers

EXECUTIVE

C. B. Ragon, special representative of the vice-president and general manager of the Ft. Worth & Denver City and the Wichita Valley, has been appointed assistant to the vice-president and general manager, with headquarters as before at Ft. Worth, Tex., a change of title.

Russell J. Morton, general manager of the Chattahoochee Valley, has been elected president, with headquarters as before at West Point, Ga., succeeding **George H. Lanier,** resigned. **Robert F. Lanier,** general superintendent, has been elected vice-president and general manager, **Harry L. Bailey,** vice-president, has resigned.

Merrel P. Callaway, vice-president of the Guaranty Trust Company of New York, was appointed co-trustee of the Central of Georgia on November 8, succeeding **A. B. Lovett,** who resigned to accept appointment as federal judge. Mr. Callaway was born near Albany, Ga., on November 26, 1872, and was graduated from Mercer University. He practiced law with the firms of Irwin & Callaway and Hardeman, Jones, Callaway & Johnson. He specialized in rate litigation and from 1910 to 1918 he represented 33 railroads at Washington, D. C., including the Central of Georgia, Atlantic Coast Line, Southern, Seaboard Air Line and the Illinois Central. This practice involved many rate cases before the Interstate Commerce Commission and certain state commissions. When the government took over this department in 1918, Mr. Callaway returned to Macon, Ga., as president of the Continental Trust Company and vice-president of the Fourth National Bank of Macon. He has been vice-president of the Guaranty Trust Company of New York since 1919, in which capacity he has kept in close touch with the railroads, their financial structure and their reorganization problems. He has served as a member of a bondholders' committee of the Chicago, Rock Island & Pacific, the committee having prepared the plan of reorganization that has largely been adopted by the I. C. C. for that property. He is a director of the Alabama Great Southern.

FINANCIAL, LEGAL AND ACCOUNTING

O. J. Smidl has been appointed supervisor of contracts of the Chicago, Burlington & Quincy, with headquarters at Chicago. He will handle all matters pertaining to contracts and joint facilities.

Erle J. Zoll, Jr., has been appointed commerce attorney on the Illinois Central, with headquarters at Chicago, succeeding **Lawrence Chaffee,** who has resigned. **Harold E. Spencer** has also been appointed a commerce attorney for the Illinois Central at Chicago, a newly created position.

TRAFFIC

M. C. Wright, commercial agent on the Chicago & Eastern Illinois at Chicago, has been promoted to coal traffic agent, with the same headquarters, a newly created position.

John F. Sullivan, general passenger agent on the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., has been promoted to passenger traffic manager, with the same headquarters, succeeding **John T. Monroe,** whose death on October 30 was reported in the *Railway Age* of November 8. **J. E. Bledsoe,** district passenger agent at Dallas, Tex., has been promoted to assistant passenger traffic manager, with headquarters at Houston, a newly created position.

George H. Hartwell, assistant division freight agent on the Atchison, Topeka & Santa Fe at San Franciso, Cal., has been promoted to general agent at Portland, Ore., succeeding **Heath W. Pate,** who has been advanced to division freight and passenger agent at Stockton, Cal. Mr. Pate relieves **Walter S. Pitchford,** who has been promoted to general agent at Sacramento, Cal., replacing **Horace C. Hunter,** who has been promoted to division freight agent at Oakland, Cal. Mr. Hunter succeeds **Edward J. Piatt,** whose appointment as division freight agent at San Francisco was reported in the *Railway Age* of November 8.

OPERATING

Ernest E. Baker, a dispatcher on the Gulf Coast Lines at Galveston, Tex., has been promoted to trainmaster on the Northern division, a newly created position.

F. E. Bailey has been appointed assistant superintendent of the Farnham (Que.) division of the Canadian Pacific, succeeding **W. Garland,** who is on leave of absence.

John P. Donovan, assistant general yardmaster on the Atchison, Topeka & Santa Fe at Los Angeles, Cal., has been promoted to terminal trainmaster at that point, a newly created position.

Walter A. Seal, general yardmaster on the Southern Pacific at Los Angeles, Cal., has been promoted to assistant terminal superintendent at that point, succeeding **G. L. Morrison,** whose appointment as division engineer at Ogden, Utah, is reported elsewhere in these columns.

K. W. Graham, assistant superintendent on the Louisville division of the Louisville & Nashville, with headquarters at Louisville, Ky., has been transferred to Paris, Tenn. Mr. Graham has been succeeded at Louisville by **S. A. Brownlie,** as reported in the *Railway Age* of November 15.

R. B. Johnson, general telegraph foreman of the Chicago, St. Paul, Minneapolis & Omaha, with headquarters at St. Paul, Minn., has been appointed assistant superintendent of telegraph on the Northern Pacific, with the same headquarters, succeeding **C. W. Harding,** who has been appointed assistant superintendent of telegraph of the Lines West of Paradise (Mont.), a newly created position, with headquarters at Seattle, Wash.

R. R. Gavin, assistant trainmaster on the Chicago, Burlington & Quincy at Lincoln, Neb., has been promoted to trainmaster, with headquarters at McCook, Neb., succeeding **L. L. Smith,** who has been transferred to Denver, Colo. Mr. Smith relieves **C. W. Dentner,** who has been appointed trainmaster in charge of the Omaha (Neb.) and Council Bluffs (Iowa) terminals, a newly created position, with headquarters at Omaha.

D. B. Cronin, assistant superintendent on the St. Louis-San Francisco, with headquarters at Joplin, Mo., has been promoted to superintendent of terminals, with headquarters at Birmingham, Ala., succeeding **E. A. Teed,** who is being relieved because of illness. **J. F. Lee,** assistant superintendent at Neodesha, Kan., has been transferred to Joplin, replacing Mr. Cronin and **E. H. Russell** has been appointed assistant superintendent at Neodesha, succeeding Mr. Lee.

ENGINEERING & SIGNALING

Spencer Danby, division engineer of the Maryland division of the Pennsylvania, with headquarters at Baltimore, Md., has been promoted to assistant valuation engineer, with headquarters at Philadelphia, Pa. Mr. Danby was born at Easton, Pa.,

Spencer Danby

in 1893 and was graduated from Lafayette College in civil engineering. He entered the service of the Pennsylvania in 1915 as a draftsman and served in various engineering capacities, including supervisor, assistant division engineer and division engineer.

J. R. Guthrie, leading signal maintainer on the Canadian National at Fort William, Ont., has been promoted to signal supervisor of the Alberta and British Columbia districts, with headquarters at Edmonton, Alta., succeeding **W. Thomas,** deceased.

Orie H. Wainscott, assistant engineer on the Illinois Central System, with headquarters at Chicago, has been promoted to

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assistant to the engineer maintenance of way, with the same headquarters, a newly created position.

G. L. Morrison, assistant terminal superintendent on the Southern Pacific at Los Angeles, Cal., has been appointed division engineer of the Salt Lake division, with headquarters at Ogden, Utah, succeeding **Frederick A. Feikert,** whose death on September 27 was reported in the *Railway Age* of October 25.

C. D. MacKintosh, division engineer on the Canadian Pacific at Kenora, Ont., has been appointed division engineer and assistant superintendent of the Esquimalt & Nanaimo (lease by the Canadian Pacific), with headquarters at Victoria, B. C., and **S. C. Wilcox,** division engineer at Brandon, Man., has been transferred to Kenora, Ont., succeeding Mr. MacKintosh.

MECHANICAL

D. Hendry, foreman of the freight car shops of the Canadian National at Transcona, Man., has been promoted to superintendent of the car shops at Fort Rouge (Winnipeg), Man., succeeding **J. R. Taylor,** who has retired.

William J. Mayer, who for a number of years was prominent in and served as secretary of the International Railroad Master Blacksmiths' Association (no longer in existence), has retired as blacksmith shop foreman on the Michigan Central at West Detroit, Mich.

Frederick T. H. James, assistant to chief of motive power of the Delaware, Lackawanna & Western, has been promoted to chief of motive power, with headquarters as before at Scranton, Pa., to succeed **Edward E. Root,** who requested a leave of absence because of ill health. A photograph of Mr. James and a biographical sketch of his railway career were published in the *Railway Age* of June 21, in connection with his appointment as assistant to chief of motive power at that time.

OBITUARY

Thomas Cowie, storekeeper for the Wheeling & Lake Erie at Brewster, Ohio, died at his home at Massillon, Ohio, on November 10.

Judge J. H. Barwise, a member of the firm, Thompson & Barwise, Ft. Worth, Tex., general attorneys for the Burlington Lines in Texas, died of a heart attack on October 25 at Wichita Falls, Tex.

John Van Loan, who retired on June 30, 1937, as assistant treasurer of the Railway Express Agency, Inc., with headquarters at Chicago, died at his home in that city on November 12, after an illness of several weeks. Mr. Van Loan had been with the Railway Express Agency for 54 years prior to his retirement in 1937.

Earl Miller, former superintendent of telegraph and signals of the New York, Chicago & St. Louis (Nickel Plate), with headquarters at Cleveland, Ohio, who recently relinquished that position because of failing health, and whose appointment as signal supervisor of the Lake Erie and Western and the Clover Leaf districts of the Nickel Plate, with headquarters at Frankfort, Ind., was reported in the *Railway Age* of November 8, died suddenly of a heart attack on November 16. Mr. Miller was born at Silver Lake, Ind., on April 16, 1884, and entered railway service on April 10, 1913, as a signal helper on the Nickel Plate. On December 29, 1913, he was promoted to signal maintainer at Claypool, Ind., and three years later, he was appointed maintenance foreman on the Chicago division. On January 2, 1930, Mr. Miller was advanced to general foreman and on August 1, 1935, he was promoted to signal supervisor of the Lake Erie and Western and the Clover Leaf districts, with headquarters at Frankfort. He was promoted to superintendent of telegraph and signals on March 15, 1940.

Einar Weidemann, engineer of bridges and buildings of the Western region of the Pennsylvania, with headquarters at Chicago, whose death on November 12, was reported in the *Railway Age* of November 15, was born at Trondhjem, Norway, on May 29, 1877, and graduated from the Technical Institute in that city with the degree of civil engineer in 1897. He spent several years with the Norwegian government on railroad construction, coming to the United States in 1903 when he became a structural draftsman for the American Bridge Company at Pittsburgh, Pa. In the following year Mr. Weidemann became an assistant to Herman Laub (deceased), consulting engineer and bridge specialist of Pittsburgh, and on May 5, 1909, he was appointed an engineer of structural design on the Pennsylvania at the same point. On May 1, 1915, he was transferred to the Union Station Company, Chicago, as a structural engineer, being promoted to engineer of buildings and structures on that project on January 1, 1923. Mr. Weidemann returned to the Pennsylvania on June 6, 1926, with the dissolution of the engineering organization built up for the construction of the Union Station, as an assistant engineer at Chicago. On April 1, 1927, he was promoted to assistant engineer of bridges, with headquarters at Chicago, and on January 1, 1928, he was promoted to engineer of bridges and buildings of the Western region. He was later appointed officer engineer at Chicago, and in November, 1937, he was re-appointed engineer of bridges and buildings of Western region.

Lardner V. Morris, former chief engineer of the Long Island, died at his home in Bristol, Pa., on November 15, at the age of 71. Mr. Morris was born at Bristol on July 17, 1870, and was educated at the Cheltenham Military Academy and at the Rittenhouse Academy in Pennsylvania. He started his career as a rodman in January, 1889, in connection with the surveys and construction of the Confluence & Oakland, along the Youghiogheny river in western Maryland. In 1890 he entered the engineering department of the Pennsylvania, serving in various capacities until 1902, including that of assistant engineer. In May, 1902, Mr. Morris became engineer in charge of special improvements for the reconstruction of the Long Island (subsidiary of the Pennsylvania), being assigned, in 1904, to the surveys and construction of the Bay Ridge Improvements, an undertaking in Brooklyn involving the building of four-track tunnels, the abolition of many grade crossings and the elevation and depression of tracks. He later became chief engineer of these improvements. While the latter work was in progress, Mr. Morris also assisted the chief engineer of the Long Island in connection with the extensive Jamaica Improvement project, having had charge of all plans, surveys and designs. In addition to his other duties, Mr. Morris was appointed valuation engineer of the Long Island in 1914, in which capacity he collaborated with the Valuation Committee of the Interstate Commerce Commission. Mr. Morris served as chief engineer of the Long Island from October 1, 1917, to July 6, 1926, when he became consulting engineer, retiring from active service on July 1, 1933.

James G. Gwyn, former chief engineer of the Denver & Rio Grande Western at Denver, Colo., died on October 25 at St. Joseph's hospital, Denver, following an emergency stomach operation, at the age of 83. Mr. Gwyn was born at Louisville, Ky., in 1858 and entered railroad service in 1879 with the engineering forces of the Denver & Rio Grande, serving for three years as a member of parties on location and construction in southern Colorado and New Mexico, then advancing to transitman. Mr. Gwyn was next employed on the location and construction of the Tampico Branch of the Mexican Central for about three years. Returning to the United States, he was engaged for a short time with the engineering department of the Chicago, Rock Island & Pacific on the extension of their lines into eastern Colorado. He re-entered the service of the Rio Grande on the extension of the main line between Red Cliff, Colo., and Grand junction and had charge of construction of that part of the road through Glenwood Canon. Following service under the division engineer at Pueblo, Colo., he was placed in charge of the reconstruction and standard gauging in the Royal Gorge. About two years later he had charge of similar work between Tennessee Pass, Colo., and Minturn. During the depression of 1893 - 1897 Mr. Gwyn was engaged in the location and construction of the Cuernavaca & Pacific in west central Mexico. In 1902 he returned to the Rio Grande in charge of the building of the North Fork of the Gunnison branch from Delta, Colo., to Somerset. In 1904 Mr. Gwyn was placed in charge of the location and construction of the Farmington branch from Durango to Farmington, N. M., following which he became assistant chief engineer at Denver. He was appointed chief engineer in 1908, from which position he retired in 1923 because of illness. Mr. Gwyn served as consultant to the president of the Rio Grande during the extensive rehabilitation program of 1923 to 1928 and in 1933 he was placed in charge of the location and construction of the Dotsero cut-off in Colorado.